34th International Conference on Photonic, Electronic and Atomic Collisions

ICPEAC 2025

Conference Program

2025.7.29 TUE → 8.5 TUE

SAPPORO, JAPAN

Sapporo Convention Center

Birds of Hokkaido

International Chair

Dajun Ding

(Jilin University, China)

Chair of the Local Organizing Committee

Toshiyuki Azuma

(RIKEN, Japan)

Co-Chairs of the Local Organizing Committee

Kenichi Ishikawa

(The University of Tokyo, Japan)

Masahiko Takahashi

(Tohoku University, Japan)

Naoki Watanabe

(Hokkaido University, Japan)

ICPEAC SAPPORO JAPAN 2025

Conference Website

https://www.icpeac2025.jp/

ORGANIZER

ICPEAC 2025 Organizing Committee

Partners

Hokkaido Prefectural Government

City of Sapporo

EXPO'70 FUND

IUPAP

RIKEN SYMPOSIUM

公益信託 分子科学研究奨励森野基金
The Morino Foundation for Molecular Science

公益財団法人 松尾学術振興財団

QMS

COOPERATED BY

The Physical Society of Japan
The Japan Society of Applied Physics
The Chemical Society of Japan
The Atomic Collision Society of Japan
Atomic Energy Society of Japan
Japan Society for Molecular Science
Japanese Society for Synchrotron Radiation Research
The Japan Society of Plasma Science and Nuclear Fusion Research
Japanese Society of Radiation Chemistry
WPI-QUP, International Center for Quantum-Field Measurement Systems
for Studies of the Universe and Particles

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Welcome

Welcome to ICPEAC2025, the XXXIV International Conference on Photonic, Electronic and Atomic Collisions, held in Sapporo, Hokkaido, Japan. It is held from 29 July to 5 August 2025 at the Sapporo Convention Centre in the heart of the city.

The ICPEAC covers collisions involving photons, electrons, atoms, ions, molecules, clusters, surfaces, and exotic particles, and extends dramatically to the forefront of the developments in ultracold, attosecond, and strong-field atomic and molecular physics and related areas. The scientific program of the ICPEAC XXXIV includes tutorials and plenary lecturers, progress reports, and hot topics selected by the International Program Committee. More than several hundred posters are presented. The ICPEAC conference series began in New York, USA, in 1958 and has been held every other year since 1961. This is the third time it has been held in Japan, following Kyoto in 1979 and Sendai in 1999. Sapporo is one of the largest cities in Japan, located in the heart of the northern island Hokkaido.

The conference was approved at the 31st ICPEAC held at Deauville, France in 2019. Since then, careful preparations have continued to welcome participants from all over the world: more than a hundred of the local committee members and friends have come together to make it a great conference. After a long period of various difficulties due to the COVID-19, we are back to the on-site conference. We believe in the importance of the meeting where participants getting together from different locations can communicate directly with each other and exchange variable information. The role of direct communication has not lost its significance but rather has increased despite the availability of modern tools such as web-conference devices or various social network services.

We guarantee the safe and comfortable atmosphere of Japan with relatively stable commodity prices so far. You can also enjoy another aspect of our country at Hokkaido by getting in touch with nature in Hokkaido and having a cultural experience that includes delicious food and drink. See you soon at Sapporo.

Chair and vice-chairs of the local organizing committee
Toshiyuki Azuma
Kenichi Ishikawa
Masahiko Takahashi
Naoki Watanabe

IUPAP Policies

ICPEAC 2025 abides by IUPAP Policy on Conferences, in particular the two following statements:

1. Free Circulation of Scientists: The principle of the Universality of Science is fundamental to scientific progress. This principle embodies freedom of movement, association, expression and communication for scientists, as well as equitable access to data, information and research materials. In pursuing its objectives with respect to the rights and responsibilities of scientists, the International Union of Pure and Applied Physics (IUPAP) actively upholds this principle, and, in so doing, opposes any discrimination on the basis of such factors as ethnic origin, religion, citizenship, language, political stance, gender, or age. IUPAP should only sponsor conferences and events at institutions and in countries that uphold this principle. If scientists are excluded from attending IUPAP-sponsored international conferences by a host institution or country on the basis of any of these factors, IUPAP should register its concern at the highest level of that institution or country, and should not sponsor any future events in that country until such exclusions have been eliminated.

[Section 1 of IUPAP Conference Policies]
http://iupap.org/sponsored-conferences/conference-policies/

2. Harassment at Conferences: It is the policy of the International Union of Pure and Applied Physics (IUPAP) that all participants at an IUPAP-supported Conference will enjoy a comfortable experience, and that they will treat each other with respect at all times. The conference organisers will name an advisor who will consult with those who have suffered from harassment and who will suggest ways of redressing their problems, and an advisor who will counsel those accused of harassment.

[Section 4 of IUPAP Conference Policies]
http://iupap.org/sponsored-conferences/conference-policies/

Sponsors

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株式会社東栄科学産業 Toei Scientific Industrial Co.,Ltd.

Suzuki Shokan Co.,Ltd.

VISUAL TECHNOLOGY

TOPTICA

Tutorial Session Venue

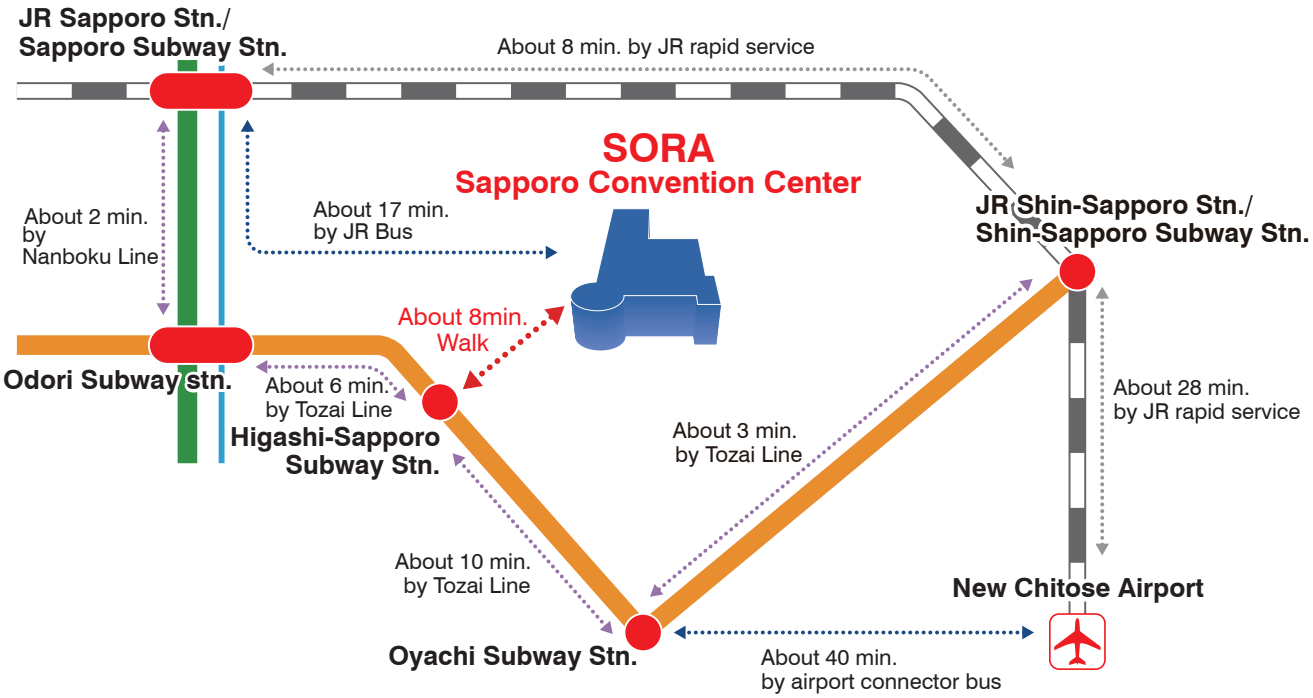
Conference Hall, Hokkaido University

8-1 Kita 8-jo Nishi 5, Kita-ku, Sapporo,
060-0808, Japan

Conference Venue

Sapporo Convention Center

1-1-1 Higashi-Sapporo 6-jo, Shiroishi-ku, Sapporo, 003-0006, Japan
https://www.sora-scc.jp/eng/

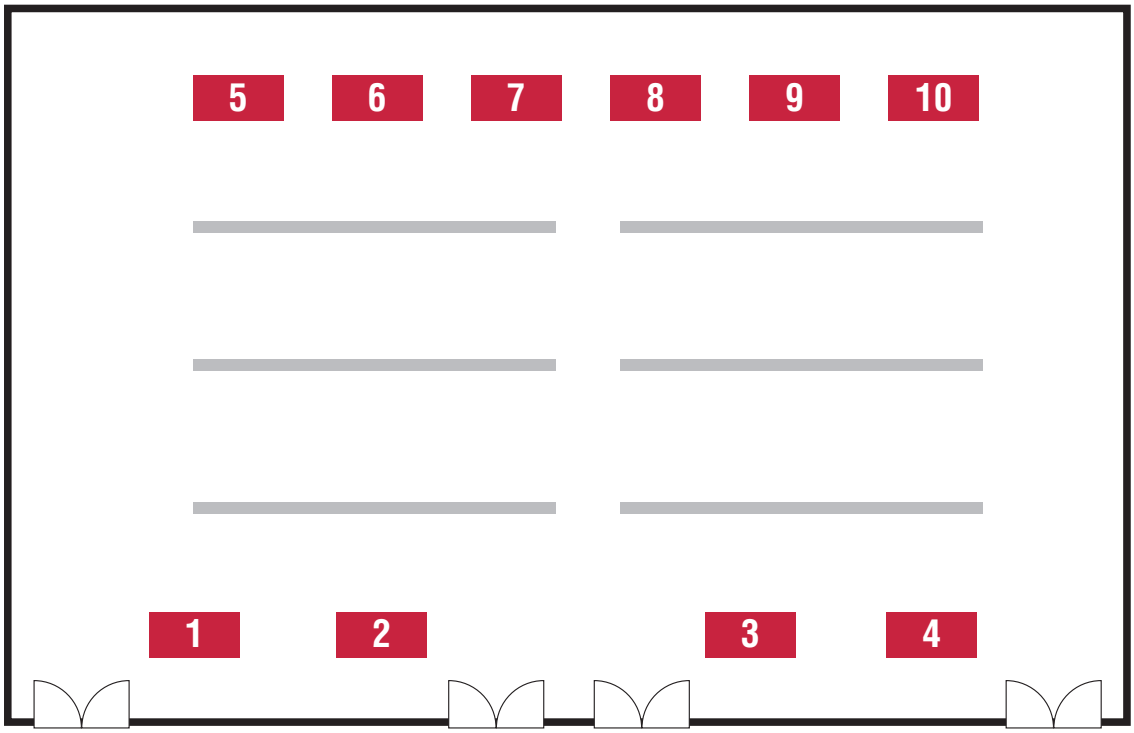


Floor Plan

Sapporo Convention Center 1F

Exhibition

107+108 Poster Session / Exhibition



Electronics Optics Research, Ltd.	1
HPC TECH Corporation	2
American Physical Society	3
LIGHT CONVERSION / PHOTOTECHNICA CORP.	4
HyBridge CO., Ltd.	5
NIKIGLASS CO., LTD.	6
TechnoAP	7
Japan Laser Corporation	8
R-DEC Co., Ltd.	9
Kashiyama Industries, Ltd.	10

General Information

Check-in

Upon arrival, please visit the Registration Desk to pick up your name badge. Please wear the badge at all times when you stay at the conference venue.

Registration Desk

Tuesday, July 29	in front of Main Hall C
Wednesday, July 30 - Tuesday, August 5	in front of Conference Hall

Name Badge and Certificate of Attendance

The name badge and certificate of attendance will be provided at the registration desk.

Registration Hours

Tuesday, July 29	16:30-18:00
Wednesday, July 30	8:00-18:30
Thursday, July 31	8:30-18:30
Friday, August 1	8:00-18:30
Monday, August 4	8:30-18:30
Tuesday, August 5	8:30-16:00

Cloakroom Opening Hours

Tuesday, July 29	inside Main Hall C
Wednesday, July 30 - Tuesday, August 5	nearby the Conference Hall

Tuesday, July 29	16:30-20:30
Wednesday, July 30	8:00-18:30
Thursday, July 31	8:30-18:30
Friday, August 1	8:00-18:30
Monday, August 4	8:30-18:30
Tuesday, August 5	8:30-17:00

Exhibition Hours

Wednesday, July 30	9:00-18:30
Thursday, July 31	9:00-18:30
Friday, August 1	9:00-18:30
Monday, August 4	9:00-18:30
Tuesday, August 5	9:00-16:00

Internet

We offer participants a free internet connection throughout the venue.
Simply select SSID and enter PW below to enjoy surfing.

SSID: sora2003
PW: sora2003

Meals and Refreshments

Terrace Restaurant SORA (in the SCC)
- Opening Hours: 11:00-14:30

RASORA Sapporo (Shopping Mall near the venue)
- Opening Hours: 10:00-20:00 / Opening Hours of Restaurants: 11:00-21:00

Cash Machines

- No currency exchange services are available at the congress site.
- Seven Bank ATMs, located inside 7-Eleven convenience stores, accept foreign-issued credit cards and cash cards and provide vocal and on-screen guidance in the English, Korean, Chinese, and Portuguese languages. The machines also accept debit cards for cash withdrawals. The following ATMs can be used and can commonly be found. (Japan Post Bank / Seven Bank / American Express/ Visa / Mastercard / Diners Club / JCB /China Union Pay).
- The 7-Eleven near the Sapporo Convention Center:
  The 7-Eleven Higashi Sapporo 5 Jo 5-2-1-28, Higashi-Sapporo, Higashi-ku, Sapporo 003-0005 Japan

Taxi

- Taxi stand is located outside of the South Entrance of Sapporo Convention Center.
- Credit cards are accepted for taxi payments.

Information For Speakers And Chairs

Information for Presenters and Chairpersons

Information for Chairpersons of Oral Sessions

[Chair of Oral Sessions]

1. Be seated in the Chairperson's seats at least 10 minutes prior to the beginning of your session.
2. Ensure the session ends on time:
   - Plenary lectures: 60 minutes, including discussion
   - Progress reports: 30 minutes, including discussion
   - Special reports: 15 minutes, including discussion
   - IUPAP Early Career Scientist Prize: 30 minutes, including discussion

[Information for Oral Presenters]

1. Check-in for Oral Presenters at the PC Center

- Presenters are recommended to use a PC equipped in the convention center for their presentations.
- Bring your presentation slides to the PC center the day before your presentation, following the guidelines below.
- Bring your presentation slides (in Windows PPT, PPTX, or Adobe PDF format) on a USB flash drive.
- Your media should contain only the presentation data for the Conference.
- Windows (Windows 365) is the only operating system available for the presentations.
- Name your presentation file in the format: <Name>.pptx. (ex. KennethWilson.pptx)
- If your presentation references other files (i.e. still or moving images, graphs, etc.), save them in the same folder, and verify the links beforehand.
- Only Windows Media Player will be available for video playback.
- Presenters who wish to use their own computer (e.g., a Mac) are requested to contact the PC Center well in advance.

PC Center

Wednesday, July 30 - Tuesday, August 5, located in front of Conference Hall

Opening Hours of PC Center

Date	Time
July 29, Tuesday	16:00-18:00
July 30, Wednesday	8:00-18:30
July 31, Thursday	8:30-18:30
August 1, Friday	8:00-18:00
August 4, Monday	8:30-18:30
August 5, Tuesday	8:30-14:30

2. Technical Equipment for Oral Presentations

- Video Projector
- Front Projection Screen
- PC

3. Presentation Guidelines

- The official language of the conference is English. Prepare your presentation slides in English.
- A 16:9 aspect ratio of the slides is recommended, but a 4:3 aspect ratio is also acceptable.
- Be seated in the designated front seats at least 5 min prior to the beginning of your session.
- The presentation time outlined in the schedule includes time for discussion. Prepare accordingly.

Information for Poster Presenters

1. Poster Panel

The size of the poster panel is W900 x H2100. Prepare your poster in A0 size (W841 x H1189) in portrait orientation.

2. Set-up/Removal

Poster presenters must set up their posters on the designated poster panel before the lunch break begins and remove them at the designated time below on the day of their session. If you are unsure of your panel location, please inquire at the Information Desk located at the venue. Any posters remaining after the removal time will be removed by the Conference Secretariat. The Secretariat will not be responsible for any poster left behind. Presenters are strongly encouraged to stand by their posters during core time.

Date	Removal time
July 30, Wednesday	18:30-19:00
July 31, Thursday	18:30-19:00
August 1, Friday	18:00-18:30
August 4, Monday	18:30-19:00

- Pins will be provided along with the board. Do not use any other materials (i.e. adhesive tapes).
- Conference staff may take pictures of some posters during the conference for reporting purposes.

ICPEAC Committees

Executive Committee members

	Name	Affiliation
Chair	Dajun Ding	Jilin Univ., China
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Past Local Chair (ICPEAC2023)	Tom Kirchner	York Univ., Canada
Past Local Co-chair (ICPEAC2023)	André Staudte	NRC Canada/Univ. Ottawa, Canada
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Local Co-chair	Kenichi Ishikawa	Univ. Tokyo, Japan
	Masahiko Takahashi	Tohoku Univ., Japan
Local Co-chair (ICPEAC2027)	Michael Meyer	European XFEL, Germany
	Robin Santra	DESY/Univ. of Hamburg
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	Emily Lamour	Sorbonne Univ., France
	Lokesh Tribedi	Tata Inst. of Fundamental Research, India

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	Name	Affiliation
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	Yuri Aikawa	Univ. Tokyo, Japan
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	Nobuyuki Nakamura	Univ. Electro. Comm., Japan
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	Hiroyo Araiso	Sophia Univ., Japan
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	Runa Kuroda	Nagoya Univ., Japan
	Minori Abe	Hiroshima Univ., Japan
	Miho Yamauchi	Kyusyu Univ., Japan
	Aiko Takamine	Kyusyu Univ., Japan

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	Yukiyoshi Ohtsuki	Tohoku Univ., Japan
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	Eriko Nango	Tohoku Univ., Japan
	Kouichi Soejima	Niigata Univ., Japan
	Miyabi Hiyama	Gunma Univ., Japan
	Natsuko Fujita	JAEA, Japan
	Tong Xiao-Min	Tsukuba Univ., Japan
	Shigeo Tomita	Tsukuba Univ., Japan
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	Shiro Matoba	KEK, Japan

	Hideki Ohmura	AIST, Japan
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	Kaoru Yamanouchi	Univ. Tokyo, Japan
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	Takeshi Sato	Univ. Tokyo, Japan
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	Toru Morishita	Univ. Electro. Comm., Japan
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	Reika Kanya	Tokyo Metropolitan Univ., Japan
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	Takeshi Odagiri	Sophia Univ., Japan
	Shinkoh Nanbu	Sophia Univ., Japan
	Hiroyo Araiso	Sophia Univ., Japan
	Mizuki Kimura	Sophia Univ., Japan
	Yuji Nakano	Rikkyo Univ., Japan
	Yukari Matsuo	Hosei Univ., Japan
	Yasuhiro Sakai	Toho Univ., Japan
	Takeshi Furukawa	Toho Univ., Japan
	Tokuei Sako	Nihon Univ., Japan
	Nami Sakai	RIKEN, Japan
	Eiji Takahashi	RIKEN, Japan
	Yuya Morimoto	RIKEN, Japan
	Yoichi Nakai	RIKEN, Japan
	Susumu Kuma	RIKEN, Japan
	Tomoya Okino	RIKEN, Japan
	Miyabi Imai	RIKEN, Japan
	Hideko Nomura	NAOJ, Japan
	Masanori Tachikawa	Yokohama City Univ., Japan
	Kaori Kobayashi	Toyama Univ., Japan
	Yasumasa Hikosaka	Toyama Univ., Japan

	Hayato Ohashi	Toyama Univ., Japan
	Keisuke Hatada	Toyama Univ., Japan
	Daiji Kato	Natl. Inst. Fusion Science, Japan
	Kenji Ohmori	IMS, Japan
	Akiyoshi Hishikawa	Nagoya Univ., Japan
	Mizuho Fushitani	Nagoya Univ., Japan
	Yuki Ono	Nagoya Univ., Japan
	Runa Kuroda	Nagoya Univ., Japan
	Takuya Majima	Kyoto Univ., Japan
	Makoto Imai	Kyoto Univ., Japan
	Shunsuke Adachi	Kyoto Univ., Japan
	Kunikazu Ishii	Nara Women's Univ., Japan
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	Takuya Horio	Kyushu Univ., Japan
	Miho Yamauchi	Kyushu Univ., Japan
	Aiko Takamine	Kyushu Univ., Japan
	Tatsuo Kaneyasu	SAGA Light Source, Japan

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Dariusz Banas	Poland
Alessandra Barbosa	Brazil
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Diego Boll	Argentina
Iva Brezinova	Austria
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Dermot Green	UK
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Jaroslav Kocisek	Czech
Janina Kopyra	Poland
Allen Landers	USA
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Michael Lestinsky	Germany
Chetan Limbachiya	India
Igor Litvinyuk	Australia
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Takashi Mukaiyama	Japan
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Filipe da Silva	Portugal
Andrey Surzhykov	Germany
Jianmin Yuan	China
Tanya Zelevinsky	USA
Shaofeng Zhang	China

Prizes

The Sheldon Datz Prize for an Outstanding Young Researcher attending ICPEAC

The Sheldon Datz Prize supports an outstanding young researcher (graduate student/post-doc) to attend ICPEAC 2025 with a US $1,000 award. Among equally qualified candidates, the personal/institutional funding situation that would otherwise not enable participation of the applicant at ICPEAC is taken into account.

IUPAP C15 Early Career Scientist Prize in AMO for 2025

Nominations are now open for the IUPAP Early Career Scientist Prize in Atomic, Molecular, and Optical Physics (C15) for 2025. The prize will be granted during the 34th International Conference on Photonic, Electronic and Atomic Collisions (ICPEAC 2025), which will take place from July 29th to August 5th, 2025 in Sapporo, Japan. The Prize includes a certificate, a medal, a EURO 1,000 award and an invited presentation at ICPEAC 2025.
IUPAP Early Career Scientist Prize in Atomic, Molecular and Optical Physics 2025 is awarded to Dr. **Kirill Koshelev** (Australian National University) to his ground breaking achievement of **Extreme light trapping in ultrasmall nanostructures**.
The award ceremony and his award lecture are scheduled in the morning of August 1 (Fri).

Program at a Glance

	Tuesday July 29			Wednesday July 30		Thursday July 31			Friday August 1		Saturday August 2	Sunday August 3	Monday August 4		Tuesday August 5		
VENUE	Hokkaido University	SAPPORO CONVENTION CENTER											SAPPORO CONVENTION CENTER				VENUE
8:30				(8:45 am) ICPEAC Opening					Plenary Lecture III Hossein Sadeghpour Chair : Kirchner (Conference Hall)								8:30
9:00				Plenary Lecture I Linda Young Chair : Ding (Conference Hall)		Plenary Lecture II Yasuyuki Nagashima Chair : Orel (Conference Hall)							Plenary Lecture IV Ronnie Hoekstra Chair : Schippers (Conference Hall)		Plenary Lecture V Laurent Nahon Chair : Lamour (Conference Hall)		9:00
9:30									IUPAP Prize talk Kirill Koshelev Chair : Azuma								9:30
10:00				Coffee break		Coffee break			Coffee break				Coffee break		Coffee break		10:00
10:30				Atto Chair : Ibrahim Driver (PR) Rego (PR) Jiang (SR) Ivanov (SR) Schnorr(SR) Plekan (SR) (Conference Hall)	Exotic Chair : Tachikawa Yoshioka (PR) Glöggler (PR) Yamashita (PR) Belosevic (SR) Tong (SR) (Mid-sized Hall)	FEL Chair : Jahnke Son (PR) Ingle (PR) Al Haddad (PR) Togawa(SR) Ganguly (SR) (Conference Hall)	Astro Chair : Okada Dowd (SR) Orszagh (PR) Noble (PR) da Costa (PR) Tsuge (SR) (Mid-sized Hall)		Atto Quantum Chair : Dahlström Vrakking (PR) Busto (PR) Ciappina (PR) Sato (PR) (Conference Hall)	El-molecule Chair : Chen Ingólfsson (PR) Cornetta (PR) Miranda (SR) Rodrigues (SR) Neha (SR) Dobashi (SR) (Mid-sized Hall)		Ultrafast Chair : Vozzi Itatani (PR) Zhang (PR) Zhou (SR) Amitay(SR) Cavaletto (SR) Jacob (SR) (Conference Hall)	El-collision Chair : Houamer Cizek (PR) Gorfinkiel (PR) Jahr (SR) Mootheril Thomas(SR) Rajendran (SR) Segui (SR) (Mid-sized Hall)	Liquid Chair : Thuermer Walsh (PR) Slavíček (PR) Nag (SR) Bloß (SR) (Conference Hall)	Spectroscopy Chair : Tökési Dutta (PR) Kelkar (PR) Yang (PR) Xiao (PR) (Mid-sized Hall)	10:30
11:00	Tutorial I Sylwia Ptasinska Chair : Takahashi																11:00
11:30																	11:30
12:00	Lunch																12:00
12:30				Lunch		Lunch		General Committee Meeting (201+202)	Lunch				Lunch		Business Meeting (Conference Hall)		12:30
13:00															Lunch		13:00
13:30	Tutorial II Kiyoshi Ueda Chair : Ishikawa																13:30
14:00				SR+EUV Chair : Hishikawa Suzuki (PR) Kadhane (PR) Marchenko (PR) Pille (SR) Rajput (SR) (Conference Hall)	Cold Chair : Hatakeyama Saito (PR) Ferlaino (PR) Zhao (PR) Orbán (SR) (Mid-sized Hall)	Storage Rings Chair : Zhang Kreckel (PR) Gatchell (SR) Bogot (PR) Herrmann (SR) Stockett (PR) (Conference Hall)	Fundamental theory Chair : Bray Strnat (PR) Gribakin (PR) Fritzsche (PR) Matyus(PR) (Mid-sized Hall)		Surface Chair : Cassimi Wilhelm (PR) Vojtech (SR) Bellissimo (PR) Urbain (SR) (Conference Hall)	Bio Chair : Tribedi Berholts (PR) Green (PR) Łabuda (PR) Kumaki (SR) (Mid-sized Hall)		Complex Chair : Safvan Silva (PR) Maclot (PR) Montanari (PR) Endo (PR) (Conference Hall)	Theory etc Chair : Morishita Spicer (PR) Della Picca (PR) Ye (PR) Falkowski (SR) (Mid-sized Hall)			14:00
14:30	Coffee break														Imaging Chair : Simon Mizuse (PR) Prabhudesai (PR) Slaughter (PR) Yuan (SR) (Conference Hall)	Nuclear Chair : Surzhykov Yamaguchi (PR) Litvinov (PR) Wang (PR) Kong (PR) (Mid-sized Hall)	14:30
15:00	Tutorial III Friedrich Aumayr Chair : Azuma										Excursion / Free Discussion						15:00
15:30																	15:30
16:00				Poster Session I (107+108, 104+105)		Poster Session II (107+108, 104+105)			Poster Session III (107+108, 104+105)				Poster Session IV (107+108, 104+105)				16:00
16:30		Registration: 16:30-18:00 Welcome Reception: 17:00-19:30 (Main Hall C)													End of Conference		16:30
17:00																	17:00
17:30																	17:30
18:00			Executive Committee meeting and dinner (Conference Hall 2F waiting room)														18:00
18:30																	18:30
19:00				Public lecture 1 Takaaki Kajita Chair : Azuma (Conference Hall)		Public lecture 2 Mokottunas Kitahara Chair : Watanabe (Conference Hall)							Conference Dinner 19:00-21:00 (Sapporo Beer Garden)				19:00
19:30																	19:30
20:00																	20:00
20:30																	20:30
21:00																	21:00
21:30																	21:30

ICPEAC
SAPPORO JAPAN 2025

Detailed Program

XXXIV International Conference on Photonic, Electronic and Atomic Collisions
July 29 - August 5, 2025, Sapporo, Japan

Birds of Hokkaido

Detailed Program

Tuesday, July 29

Tutorial sessions are located at Conference Hall, Hokkaido University.

Tutorial I — **Conference Hall, Hokkaido University** — **11:00-12:00**

Instrumentation for Electron Scattering: Current Advances and Future Prospects
Sylwia Ptasinska (University of Notre Dame, USA)
Chair: Masahiko Takahashi (Tohoku University, Japan)

Lunch — **12:00-13:30**

Tutorial II — **Conference Hall, Hokkaido University** — **13:30-14:30**

Ultrafast X-ray Science
Kiyoshi Ueda (Tohoku University, Japan)
Chair: Kenichi Ishikawa (The University of Tokyo, Japan)

Coffee break — **14:30-15:00**

Tutorial III — **Conference Hall, Hokkaido University** — **15:00-16:00**

The interaction of slow, highly charged ions with 2D materials
Friedrich Aumayr (TU Wien, Austria)
Chair: Toshiyuki Azuma (RIKEN, Japan)

Detailed Program

Wednesday, July 30

ICPEAC Opening — **Conference Hall** — 08:45-09:00

Plenary Lecture I — **Conference Hall** — 09:00-10:00

Femtosecond and attosecond dynamics in liquid water
Linda Young (The University of Chicago, USA)
Chair: Dajun Ding (Jilin University, China)

Coffee Break — 10:00-10:30

Parallel Session I A: Atto — **Conference Hall** — 10:30-12:30

Chair: Heide Ibrahim (ALLS @ INRS, Canada)

PR **Attosecond Delays in X-Ray Molecular Ionization**
Taran Driver (Stanford PULSE Institute, USA)

PR **Theory of Impulsive Stimulated X-ray Raman Scattering in Liquid Water**
Laura Rego (Instituto de Ciencia de Materiales de Madrid (ICMM-CSIC), Spain)

SR **Time Delays as Attosecond Probe of Interelectronic Coherence and Entanglement**
Wei-Chao Jiang (Shenzhen University, China)

SR **Attosecond delay in the process of spin flip tunnel ionization**
Igor Ivanov (Australian National University, Australia)

SR **Probing Ultrafast Dynamics in Core-Excited N_2O Molecules**
Kirsten Schnorr (Paul Scherrer Institut, Switzerland)

SR **Photoinduced Dynamics in Uracil probed at the O, N and C 1s Edges**
Oksana Plekan (Elettra-Sincrotrone Trieste S.C.p.A., Italy)

Parallel Session I B: Exotic — **Mid-sized Hall** — 10:30-12:30

Chair: Masanori Tachikawa (Yokohama City University, Japan)

PR **Laser cooling of positronium using a chirped laser pulse train and prospects for precise transition frequency measurements**
Kosuke Yoshioka (The University of Tokyo, Japan)

PR **Advances in Doppler Cooling of Positronium: Toward Cryogenic Conditions and 2D Cooling**
Lisa Theresa Glöggler (CERN, Switzerland)

PR **Recent theoretical progress in muon catalyzed fusion**
Takuma Yamashita (Tohoku University, Japan)

SR **Measurements of charge exchange cross sections with positronium in GBAR**
Ivana Belosevic (IRFU, CEA, Université Paris-Saclay, France)

SR **Orbital collapse in exotic atoms**
Xiao-Min Tong (University of Tsukuba, Japan)

Lunch — 12:30-14:00

Parallel Session II A: SR+EUV — Conference Hall — 14:00-16:00

Chair: Akiyoshi Hishikawa (Nagoya University, Japan)

PR **Non-Adiabatic Dynamics in Aqueous Solution Studied by Exteme UV Ultrafast Photoemission Spectroscopy**
Toshinori Suzuki (Kyoto University, Japan)

PR **VUV dissociative photoionization of nitrogenated aromatics: a possible contributor to the molecular inventory in space**
Umesh Ramakant Kadhane (Indian Institute of Space Science and Technology, India)

PR **Hard X-ray Auger spectroscopy probing electron dynamics**
Tatiana Marchenko (CNRS/Sorbonne University, France)

SR **Shedding Light on Sulfur - Aromatic Interactions: Near-Edge X-ray Absorption Mass Spectrometry of Gas-Phase Peptides**
Laura Pille (DESY, Germany)

SR **State selectivity in "Core Ionization" of methane**
Jyoti Rajput (University of Delhi, India)

Parallel Session II B: Cold — Mid-sized Hall — 14:00-16:00

Chair: Atsushi Hatakeyama (Tokyo University of Agriculture and Technology, Japan)

PR **Single-Trapped-Ion Matter-Wave Interferometer with an Elliptical Orbit for Rotation Sensing**
Ryoichi Saito (Institute of Science Tokyo, Japan)

PR **When Crystals Flow: The Emergence of Supersolid Quantum States**
Francesca Ferlaino (Institut für Experimentalphysik - Universität Innsbruck & IQOQI, Austria)

PR **Magnetic Feshbach resonances in ultracold atom-molecule collisions and formation of ultracold triatomic molecules**
Bo Zhao (University of Science and Technology of China, China)

SR **Competing excitation quenching and charge exchange in ultracold Li-Ba^+ collisions**
Andrea Orbán (HUN-REN Institute for Nuclear Research, Hungary)

Poster Session I — Room 107+108 — 16:00-18:30

Photon - Atom/Ion

We001 **Xenon photoionization in the vicinity of 4*d* giant resonance and Cooper minimum using an XUV-NIR pump-probe experiment at FLASH**
Igor Litvinyuk

We004 **From megabarns to attoseconds: How to relate the cross-section with the time delay**
Anatoli Kheifets, JiaBao Ji, Meng Han, Kiyoshi Ueda, Hans Jakob Wörner

We005 **Generation of Bessel vortex electrons via atomic photoionization**
Bikash K Das, Camilo Granados, Marcelo F Ciappina

We006 **Stimulated Raman transitions below and above the ionization threshold of neon using a free-electron laser**
Stefanos Carlström, Matthieu Génévriez, Jochen Mikosch, Jan-Erik Rubensson, Johan Söderström, Carlo Callegari, Michele Di Fraia, Oksana Plekan, Serguei Patchkovskii, Ulrich Eichmann

We007 **Probing the emission behaviors of Tm-doped $CsPbBr_3$ via temperature-dependent PL and TR-PL**
Bi-Hsuan Lin

We009 **Revived Confinement Resonances Near Inner Thresholds in Photoionzation Time Delay of Confined Atoms**
David Keating, Steven Manson

We010 New results on vortex electron photoemission and scattering by atomic targets
Ilia Pavlov, Dmitry Karlovets, Alisa Chaikovskaia, Nadezhda Sheremet, Dmitry Grosman

We011 Measurement of hyperfine structure of the $^2P_{1/2}$ and $^2P_{3/2}$ states in B-like $^{35}Cl_{12+}$ ions at SH-HtscEBIT
Xin Liu, Weiqiang Wen, Fanhu Qu, Bingli Li, Xiaopeng Zhou, Andrey Volotka, Yury Kozhedub, Jun Xiao

We012 Coherent control of entanglement in strongly coupled photoionization with quantum relay to spontaneous emission
Jan Marcus Dahlstroem, Axel Stenquist

We013 Atomic cascade computations for astro and plasma physics
Stephan Fritzsche, Aloka Kumar Sahoo, Lalita Sharma, Zhongwen Wu, Stefan Schippers

We014 Quantum computing of large-*S* spin chains
Erik Lötstedt, Kaoru Yamanouchi

We015 Characteristic X-ray emissions from X-ray collisions and nuclear decay
Hiroshi Yoshii, Ukyou Yanagisawa, Hui Wang, Tsugufumi Matsuyama, Yasuhiro Sakai

We016 Satellite structures of the Sr K α peaks in X-ray fluorescence spectra derived from incomplete charge collection in the detector and radiative Auger effect
Ukyou Yanagisawa, Hui Wang, Tsugufumi Matsuyama, Yasuhiro Sakai, Hiroshi Yoshii

We017 Multiple spin-dependent acceleration of trapped ion by Raman transition for the realisation of a Sagnac interferometer
Loïc Clarot, Takashi Mukaiyama, Ryoichi Saito, Ryosuke Maeda

We019 Suppressing electron disorder-induced heating of ultracold neutral plasma via optical lattices
Haibo Wang, Zonglin Yao, Haoyu Huang, Jianing Sun, Fuyang Zhou, Yong Wu, Jianguo Wang, Xiangjun Chen

We021 Precision X-ray absorption spectroscopy of metallic iron using Li-like fluorine ions for photon energy calibration
Pierre-Michel Hillenbrand, Lia Corrales, Florian Trinter, Michael Martins, Alfred Müller, Dmitrii Potorochin, Simon Reinwardt, Stefan Schippers, Shu-Xing Wang, Daniel Wolf Savin

We023 Modeling angularly resolved phase-jumps in heavy atoms
Carl Leon Mikael Petersson, Elisei Mankov, Soumyajit Saha, Johanna Sorngard, Jimmy Vinbladh, Eva Lindroth

We024 Photoionization of Hg subshells in the presence of Relaxation Effects: A Comparative Study of Transition amplitudes in Length and Velocity forms
Steven T. Manson, Aarthi Ganesan, Sourav Banerjee, Pranawa C Dechmukh

We025 Attosecond Vortex Photoelectron Holography: Probing the Helical Phase of Chiral Molecules
Liding Li, Yongkun Chen

We026 Energetic Processing of 2-Cyano-Indene Monocations: A Multi-Laboratory Study with Astrophysical Implications
Arun Subramani, Jose Eduardo Navarro-Navarrete, James Flotte De Pouzols, Eleanor Ashworth, James Bull, Laurent Nahon, Gustavo Garcia-Macias, Berenger Gans, Corentin Rossi, Ugo Jacovella, Henning Zettergren, Henrik Cederquist, Mark Hugo Stockett

We028 K-shell lines of neutral Iron atoms in the central region of the Milky Way resolved by the X-ray astronomy satellite XRISM
Kumiko K. Nobukawa, Yuma Aoki, Masayoshi Nobukawa, Hideki Uchiyama, Shigeo Yamauchi, Anje Yoshimoto, Takeshi Tsuru, Hiroyuki Uchida, Takuto Narita, Hironori Matsumoto

We029 Nondipole streak camera for circularly polarized intense laser fields
Renata Della Picca, Juan Martín Randazzo, Sebastián López, Marcelo Ciappina, Diego Arbó

We034 Saddle point analysis on enhancement of the few-cycle-driving high-order harmonic generation
Zhi-Hong Jiao, Tian-Xiang Ma

Photon - Molecule/Cluster

We035 Kinematically complete, high resolution, time-resolved imaging of H_2O after O-K-photoionization using a synchrotron
Owen Dennis McGinnis, Till Jahnke

We036 Anisotropy Induced Electronic Coherence Signal in Attosecond Transient Absorption Spectroscopy
CH Isaac Yuen, Chii-Dong Lin

We037 A data-driven analysis of structure–spectrum relationships in liquids
Eemeli A. Eronen, Anton Vladyka, Christoph J. Sahle, Johannes Niskanen

We038 Photoionization of simple organic compounds using the R-matrix method
Sapna Mahla, Bobby Antony

We040 High-Harmonic Spectroscopy in Organic Molecular Crystals
Samuel Schöpa, Falk-Erik Wiechmann, Lina Bielke, Svenja Rindelhardt, Serguei Patchkovskii, Felipe Morales, Alexander Villinger, Maria Richter, Dieter Bauer, Franziska Fennel

We041 Coupling X-ray diffraction and Infrared spectroscopy for the study of ultrafast non-reversible phenomena in RbMnFe compounds
Gael Privault, Marius Herve, Roman Bertoni, Elzbieta Trzop, Masaki Hada, Celine Mariette, Hiroko Tokoro, Shin-ichi Ohkoshi, Maciej Lorenc, Eric Collet

We042 Probing coupled rotational and electronic dynamics during laser-induced molecular fragmentation
Min Li

We043 Machine learning-predicted quantum control landscape maps of laser-induced three-dimensional alignment of asymmetric-top molecules
Ryoma Kawaoto, Tomotaro Namba, Yuta Kumagai, Yukiyoshi Ohtsuki

We044 Substituent Effects on Electrocyclic Reactions: Ultrafast Ring-Opening of α -Phellandrene Stimulated by Impulsively Excited Molecular Vibrations
ZHIYI ZHOU, Kenichiro Saita, Yusuke Minegishi, Tetsuya Taketsugu, Taro Sekikawa

We045 Photodissociation Dynamics on the $\pi\pi^*$ state of *N, N*-dimethylformamide
Momiji Karino, Ryo Shinohara, Kosuke Inoue, Katsuyoshi Yamasaki, Hiroshi Kohguchi

We047 State-Selected ns REMPI PECD Study of (-)-Fenchone
Yuxiao Xiao, Momiji Karino, Hiroshi Kohguchi

We048 The first measurement of wavelength-dependent photodesorption of OH radi-cals on ice surface in the visible light range
Ni-En Sie, Masashi Tsuge, Yoichi Nakai, Naoki Watanabe

We049 Conical intersection alters fragmentation reactions of polyatomic molecular cations
Yupeng Liu, Min Li

We050 Multi-electron-ion coincidence spectroscopy of dissociative double ionization of CH_3I and CH_2I_2 via I 4d core-hole states
Mizuho Fushitani, Yasumasa Hikosaka, Motomichi Tashiro, Akiyoshi Hishikawa

We051 Measurements of dissociation rates of naphthalene and azulene cations close to threshold energy.
Jérôme BERNARD, Suvasthika Indrajith, Guillaume Montagne, Serge Martin, Umesh R. Kadhane

We052 Probing the solvent environment via non-local core-hole decay prosses
Olle Björneholm

We053 Asymmetric bond dissociation of vibrationally excited NO2 in phase-locked ω -2 ω intense laser fields
Yuki Ono, Hiroka Hasegawa, Akitaka Matsuda, Akiyoshi Hishikawa

We054 Theoretical and experimental study for photocleavage process of coumarin-caged luciferin
Miyabi Hiyama, Ryo Kumagai, Ryohei Ono, Ken-ichiro Kanno, Hiroshi Aoyama, Junko Usukura, Masataka Kobayashi, Hidefumi Akiyama, Hideyuki Itabashi

We055 Ionization and rotational wave packet dynamics of NO_2 in intense femtosecond laser fields
Shinichi Fukahori, Seigo Nakamura, Kaoru Yamanouchi, Hirokazu Hasegawa

We056 High precision benchmarking of potential energy curve calculations with sensitivity on internuclear distances
Adrian Peter Krone, Johannes Heinrich Viehmann, Dana Bloß, Niklas Golchert, Emilia Jasmiina Heikura, Catmarna Sophia Küstner-Wetekam, Lutz Marder, Yusaku Terao, Andreas Hans, Arno Ehresmann

We057 Dynamics of doubly ionized acetonitrile in the gas phase
Sergio Diaz-Tendero, Sergio Diaz-Tendero, Noah Frese, Debadarshini Mishra, Aaron C. LaForge, Fernando Martin, Nora Berrah

We058 Adiabatic theory of strong-field ionization of molecules including nuclear motion
Toru Morishita, Jens Svensmark, Oleg I. Tolstikhin

We059 Radiationless decay spectrum of O 1s double core holes in liquid water
Florian Trinter, Ludger Inhester, Ralph Püttner, Sebastian Malerz, Stephan Thürmer, Tatiana Marchenko, Maria Novella Piancastelli, Marc Simon, Bernd Winter, Uwe Hergenhahn

We061 Effective cross-linking by irradiation of soft X-rays -dependence of X-ray energy-
Seiko Nakagawa, Maki Ohara, Akinari Yokoya, Noriko Usami

We062 Ultrafast charge transfer in aqueous L-cysteine
Nicolas Velasquez, Harmanjot Kaur, Florian Trinter, Qi Zhou, Oksana Travnikova, Abhishek Verma, André Nyborg Borrfors, Marcella Iannuzzi, Bernd Winter, Tatiana Marchenko

We063 Product-ion specific photo-electron circular dichroism of methyloxirane in near-infrared intense laser fields
Runa Kuroda, Tomohide Uchida, Koya Nishimura, Akitaka Matsuda, Akiyoshi Hishikawa

We064 Photoionization behavior of molecular hydrogen and its isotopomer near the ionization threshold
Masaru Muraoka, Masaru Muraoka, Jun Hashimoto, Kenta Murakami, Hirofumi Akasaka, Masashi Kitajima, Masamitsu Hoshino

We065 Laser tunnel-electron spectroscopy of H_2 in circularly polarized fields
Akiyoshi Hishikawa, Daimu Ikeya, Hikaru Fujise, Minami Takahashi, Kyoichiro Yasui, Akitaka Matsuda, Mizuho Fushitani, Hirokazu Matsui, Hiroka Hasegawa, Oleg I Tolstikhin, Toru Morishita

We066 Wigner vs. Smith: Time delays in anisotropic systems
Ulf Saalmann, Jan-Michael Rost, Toru Morishita

We068 Photon energy dependence of VUV-induced delayed fragmentation in ethanol
Tomohiko Nakao, Tatsuo Kaneyasu, Hiroshi Iwayama, Takuma Yanagawaya, Hidetsugu Tsuchida, Manabu Saito, Fernando Aguilar-Galindo, Sergio Díaz-Tendero, Takuya Majima

Heavy Particles, Cold Matter - Atom/Ion

We114 One-electron matter-antimatter quasimolecules within the finite-basis-set method for the two-center Dirac equation
Alexey Anikin, Alexander Danilov, Dmitry Glazov, Artem Kotov, Dmitry Solovyev

We115 Micro-PIXE Applications in Cancer Biology
Henrique Fonteles, Theylor Klippel, Daphne Tórgo, Guido Lenz, Johnny Ferraz Dias, Pedro Luis Grande

We116 Reaction rate coefficient for the $N_2^+ + CH_3CN$ at low temperatures
Kunihiro OKADA, Sho Kawasaki, Kazuhiro Sakimoto, Hans A. Schuessler, Tatsuhiro Murakami, Hinami Ueno, Toshikyuki Takayanagi

We117 Ultra-cold collisions in Hg-Rb mixture: implications for ultra-narrow optical transitions
Adam Linek, Renu Bala, Marcin Witkowski, Piotr Żuchowski, Michał Zawada, Paul Julienne, Roman Ciuryło

We118 Doubly differential cross sections for ionization of helium by He^{2+} impact
Alisher Kadyrov, Shukhrat Alladustov, Kade Spicer, Nicholas Antonio, Akshit Kotian, Alisher Kadyrov

We119 Nonradiative electron capture in fast collisions of Xe^{54+} with Kr and Xe
Bian Yang

We120 **Background measurement for the $\bar{H}$ Lamb shift spectroscopy at the GBAR experiment**
Takumi A. Tanaka, Philipp Blumer, Gianluca Janka, Ben Ohayon, Christian Regenfus, Paolo Crivelli, Takashi Higuchi, Kazuo S. Tanaka, Naofumi Kuroda

We121 **State-selective single- and double-electron capture in intermediate-energy in C^{4+} + He Collisions**
Hao Yin, Tianming Meng, Pufang Ma, Xu Tan, Yijiao Wu, Yaming Zou, Bingsheng Tu, Baoren Wei

We122 **Cross Section Measurements and State-Selective Electron Capture in Ar^{8+}/Ar^{7+}–H_2 /He Collisions**
Yijiao Wu, Tianming Meng, Xianwen Zhang, Xu Tan, Pufang Ma, Hao Yin, Bingsheng Tu, Jun Xiao, Yaming Zou, Baoren Wei

We123 **Electron capture and excitation in He^+-He collisions at intermediate and high energies**
Malay Purkait, Bidhan Mandal

We124 **Design of a cylindrical mirror analyzer for ion-atom violent collisions**
Wei Wang

We125 **Collision-induced atomic alignment and magnetic-substate ionization of medium- and high-Z_t elements**
Xing Wang, Yitong Liu, Jieru Ren, Xueguang Ren, Yongtao Zhao, Zhongfeng Xu, Rui Cheng, Guoqing Xiao

We126 **Unified treatment of atomic excitation and ionisation**
Nicholas W. Antonio, Igor Bray, Alisher S. Kadyrov

We127 **Photon emission from ionized target atoms in collisions of multiply charged ions in the EUV and visible regions**
Hajime Tanuma, Yuki Nishimura, Yuto Ozeki, Kosuke Kamezaki

We128 **Kinetic-energy measurements of atoms and molecules using Transition-Edge Sensor microcalorimeters**
Takuma Okumura, Rei Takahashi, Toshiyuki Azuma, Douglas A. Bennett, Kiattichart Chartkunchand, William B. Doriese, Joseph W. Fowler, Sakumi Harayama, Tadashi Hashimoto, Ryota Hayakawa, Yuto Ichinohe, Naoki Kimura, Susumu Kuma, Yuji Nakano, Hirofumi Noda, Galen C. O' Neil, Shinji Okada, Carl D. Reintsema, Takeshi Saito, Dan R. Schmidt, Shigetomo Shiki, Daniel S. Swetz, Hideyuki Tatsuno, Joel N. Ullom, Shinya Yamada

Heavy Particles, Cold Matter - Surface

We143 **Secondary ion emission induced by MeV heavy ion impact on methanol ice and droplets**
Manabu Saito, Shunya Nakae, Syuntaro Jifuku, Taichi Takemura, Takuya Majima, Hidetsugu Tsuchida

We146 **Solar Wind Ion Bombardment of the Lunar Surface: Experimental and Numerical Sputtering Investigations**
Johannes Brötzner, Herbert Biber, Paul Stefan Szabo, Noah Jäggi, Eduardo Pitthan, Daniel Primetzhofer, Richard Arthur Wilhelm, Peter Wurz, André Galli, Friedrich Aumayr

We147 **Temperature Dependence of the Electron-Induced Radiolysis of Solid N_2O: Applications to Astrochemistry in the Outer Solar System**
Zoltán Juhász

Heavy Particles, Cold Matter - Other

We149 **Hydrocarbon dissociation efficiency of carbon dioxide samples with Pt**
Natsuko Fujita, Natsuko Fujita, Satoshi Jinno, Fumina Minamitani

We150 **Experimental Method for Measuring Stopping Cross Sections of Liquid Materials with MeV Projectile Ions**
Hinako Imamura, Kurumi Asano, Yoshiaki Kumagai, Kunikazu Ishii

We151 **Multiple dispersion of hydrogen isotopes, muons and positrons in plasmas**
Claudia Carmen Montanari, Claudio Archubi, Arista Nestor

Poster Session I **Room 104+105** **16:00-18:30**

Photon - Surface

We069 Photon Signatures of Neutron Separation and Electron Capture: An Innovative Method for Non-Destructive Core Detection
Aneta Maria Gójska, Sławomir Wronka, Krystian Trela, Tymoteusz Kosiński, Ewelina Miśta-Jakubowska, Gabriela Saworska

We070 Emission probability ratios of Ni-Auger electrons: p(K-LX)/p(K-LL) and p(K-XY)/p(K-LL) following K-capture in the ^{64}Cu Decay Mode
Krystian Trela, Aneta Gójska, Tymoteusz Kosiński, Karol Kozioł, Ewelina Miśta-Jakubowska, Gabriela Saworska

We071 Ionization rate in dielectrics under bichromatic strong laser fields
Mizuki Tani, Kenichi Ishikawa, Tomohito Otobe

We072 Study on chemical composition and phase fraction of low oxygen Ti_3AlC_2 sythesized from deoxidized titanium powder
Jaewon Lim, taeheon Kim

We074 Investigating optical and structural properties of Eu-doped ZnO epitaxial thin film via PL and synchrotron radiation
Chien-Yu Lee, Wei-Lun Wei, Chun-Yen Lin, Tzu-Chi Huang, Yi-Chen Li, Yu-Hao Wu, Bo-Yi Chen, Wu-Ching Chou, Fang-Yuh Lo, Bi-Hsuan Lin

Photon - Other

We075 Observation of an evanescent field induced harmonic generation in pre-ionized liquid plasmas
Tomoya Mizuno, Tianqi Yang, Takayuki Kurihara, Teruto Kanai, Jiro Itatani

We076 Electron-electron coincidence spectroscopy of liquid water: Probing Intermolecular Coulombic Decay (ICD) and proton transfer
Pengju Zhang, Joel Trester, Jakub Dubský, Přemysl Kolorenč, Petr Slavíček, Hans Jakob Wörner

We077 Probing and controlling electron dynamics in condensed matter using ultrafast laser pulses
Chengyin Wu

We078 Energy absorption and excitation dynamics in amorphous Si and SiO under intense femtosecond laser pulses
Eiyu Gushiken, Tomohito Otobe, Hiroki Katow, Arqum Hashmi, Mizuki Tani, Shunsuke Yamada, Kenichi L Ishikawa

We079 Nonlinear Dynamics of X-ray Superradiant burst via cooperative nuclear excitations
Juntian Shan, Yue Chang, Lida Zhang, Fan Wang, Jianmin Yuan, Xiangjin Kong, Yu-Gang Ma

We080 Half field plans in prostate radiotherapy planning
Karoly Tökési, T. Ungvári, D. Szabó

Lepton - Atom/Ion

We084 Productive way to create *3d* excited state of H in strong laser fields
Xiao-Min Tong, N Toshima

We085 Electron Impact Excitation of Iodine and Comprehensive Collisional Radiative Modelling of Iodine Plasma
Ayushi Agrawal, Shivam Gupta, Lalita Sharma, Rajesh Srivastava

We086 Absolute rate coefficients for dielectronic recombination of the astrophysically relevant ion of Ne^{3+} at CRYRING@ESR
Elena Oana Hanu, Michael Lestinsky, Carsten Brandau, Michael Fogle, Pierre-Michel Hillenbrand, Mirko Looshorn, Esther Babette Menz, Stefan Schippers, Shuxing Wang, Thomas Stöehlker

We087 Experimental & theoretical cross sections for single & double ionization of open-4d-shell ions Xe^{12+} to Xe^{14+} by electron impact
B. Michel Döhring, Fengtao Jin, Alexander Borovik Jr. , Benjamin Ebinger, Alfred Müller, Stefan Schippers

We088 **Low-energy dissociative recombination of light diatomic ions.**
Joshua Forer, Dávid Hvizdoš, Chris H. Greene, Viatcheslav Kokoouline

We089 **Laboratory investigation of ultraviolet emission spectra of Fe^{9+} for magnetic field diagnostics of astrophysical plasmas**
Yoshiki Miya, Naoki Kimura, Masaaki Baba, Yuki Nagai, Daiki Ito, Nobuyuki Nakamura

We091 **A detailed analysis and binary (e, 2e) study on the inner-shell ionization of Xe 4d orbitals**
Takumi Sato, Masahiko Takahashi, Yasuhiro Ohshima, Masakazu Yamazaki

We092 **Hyperfine emission spectroscopy of $^{93}Nb^{10+}$ using the quasi-Zeeman-free plasma**
Naoki Kimura, Yoshiki Miya, Daiki Ito, Priti Priti, Masaaki Baba, Nobuyuki Nakamura

We093 **Impact parameter and kinematic information for differential ionization of argon by positron and electron impacts**
Karoly Tökési, R.D. DuBois

We094 **Theoretical investigation of the dielectronic recombination of Lithium-like Ni^{25+}**
Karoly Tökési, M. F. Gharaibeh

We095 **M_5 absorption edges for Os, Ir and Pt**
Silvina Segui, Silvina Limandri, Claudia Montanari, Darío Mitnik, Alejo Carreras, Gustavo Castellano, Jorge Trincavelli

We097 **Theoretical study on charge state evolution of carbon ion beams penetrating hydrogen plasma**
Chenzhong Dong, Guoqing Zhang, Chongrui Zhang, Luyou Xie

Lepton - Molecule/Cluster

We098 **Charge projectile effects in ionization of water molecule by electron and positron impct**
Salim Houamer, Imene Khiat, Imene Kada, Sana Mekhalfa, Ayoub Tamin

We101 **Electron impact excitation spectroscopy of excited H_2**
Takashi Hiroi, Yuya Morimoto, Reika Kanya, Kaoru Yamanouchi

We102 **Hydrogen atomic motions in different intramolecular enviroments**
Satoru Kanaya, Darryl Jones, Yuuki Onitsuka, Masahiko Takahashi

We103 **Theoretical Study of Potential Energy Curves and Non-Adiabatic Couplings of NeH for the Dissociative Recombination of NeH^+**
Riyad Hassaine, Dahbia Talbi, Ryan P Brady, Janos Zs Mezei, Jonathan Tennyson, Ioan F Schneider

We105 **Quantum oscillations appeared on atomic momentum distributions in polyatomic molecules**
Sota Sakaguchi, Yasuhiro Ohshima, Masakazu Yamazaki

We106 **Molecular ionization-dissociation induced by interatomic Coulombic decay in $ArCH_4$-electron collision system**
Shuncheng Yan, Ruitian Zhang, Shaofeng Zhang, Xinwen Ma

We107 **Towards experimental studies of Interatomic Coulombic electron capture (ICEC)**
André Miranda Rocco Giraldi, Deepthy Maria Mootheril, Thomas Pfeifer, Alexander Dorn

We108 **New environment friendly insulation gases identified by solving Boltzmann equation using electron impact data**
Nidhi Sinha, Heechol Choi, Hyonu Chang, Mi Young Song

We111 **Auger-electron-ion coincidence experiment on nitrogen molecule induced by electron impact**
Tuo Liu, Liren Zhou, Enliang Wang, Xu Shan, Xiangjun Chen

We112 **Angle-resolved (e, e+ion) study on electron-impact dissociative ionization of SF_6**
Noboru Watanabe, Masahiko Takahashi

We113 **Close-coupling approach to a model problem for resonant collisions of electrons with diatomic molecules**
Jamie Mark Erak, Liam H. Scarlett, Igor Bray, Dmitry V. Fursa

Heavy Particles, Cold Matter - Molecule/Cluster

We129 **Nonadiabatic-coupling-mediated argon dimer dissociation by slow and low-charge-state ion collisions**
Baoren Wei, Yu Zhang, Xiaoqing Hu, Amine Cassimi

We130 **From cluster plasmon physics to electronics**
Fengqi Song

We131 **Probing the two-body correlation function in a strongly interacting Bose gas using ultralong-range Rydberg dimers**
Shuhei Yoshida, C. Wang, Y. Lu, S. K. Kanungo, F.B. Dunning, T. C. Killian

We132 **Systematic Study of Ion-Polar Molecule Reactions: Rate Coefficients for $Ca^+ + CH_3X$ ($X = F, Cl, OH, NH_2$)**
Kotaro Ogawa, Kaito Izui, Takuya Unno, Kazuhiro Sakimoto, Kunihiro Okada

We133 **Fragmentation of naphthalene and quinoline dications produced under oxygen ion impact**
Sumit Srivastav, Sylvain Maclot, Alicja Domaracka, Patrick Rousseau

We134 **Theoretical ion-molecule collision simulations in astrochemistry**
Tatsuhiro Murakami, Toshiyuki Takayanagi

We135 **Hydrogen scrambling and high propensity for multiple neutral emissions from 1,3-butadiene dication**
Jyoti Rajput, D G Piekarski, P Kumari, A Dixit, J Yadav, C P Safvan

We136 **Evidence for the formation of excited fragments in the three body dissociation of methane**
Cholakka Parambath Safvan, D Garg, A Cassimi, X Flechard, J Rangama, J Rajput

We137 **Vibrational radiative cooling of naphthalene dimer $(C_{10}H_8)_2+$ probed by near-IR absorption in electrostatic ion beam storage rings**
Suvasthika INDRAJITH, Jérôme BERNARD, Serge MARTIN, Mark H STOCKETT, Christine JOBLIN, MingChao JI, Henning ZETTERGREN, Henrik CEDERQUIST, Fernand SPIEGELMAN, Mathias RAPACIOLI

We138 **Radical production on diluted ice surface and successive amine formation by radical–radical reactions**
Arisa Iguchi, Hiroshi Hidaka, Yasuhiro Oba, Naoki Watanabe

We140 **Degradation of building blocks of polymers for space applications due to reactions with ionospheric state selected O^+ (^4S, ^2D) ions**
Cíntia Aparecida Pires da Costa, Nandana Pattathadathil, Nicolas Solem, Roland Thissen, Christian Alcaraz, Matteo Michielan, Daniela Ascenzi

We141 **Orbital angular momentum of radiation from relativistic ions in cholesterics**
Oleg Bogdanov, Peter Kazinski

Heavy Particles, Cold Matter - Other

We152 **Hydration structure of inorganic salt solutions at various concentrations: A molecular dynamics approach**
Ayana Sato, Nanami Shima, Osamu Takahashi

We153 **Charge Distributions of Transmitted Ions by Irradiating a Graphene with Fast Li^+ and Li_2^+ Ions**
Kanae Saito, Yoshiaki Kumagai, Kunikazu Ishii

We154 **Spatial intensity distributions of transmitted laser light resulting from radia-tion and diffraction by plasma aperture relevant to RIT enhanced ion acceleration**
Koichi Kiuchi, Chang Liu, Akira Kon, Hironao Sakaki, Nicholas Dover, Karl Zeil, Milenko Vescovi, Elias Umlandt, Ginevra Casati, Mamiko Nishiuchi

Public lecture 1 **Conference Hall** **19:00-20:30**

Unveiling the Mysteries of the Universe from Underground
Takaaki Kajita (The University of Tokyo, Japan)
Chair: Toshiyuki Azuma (RIKEN, Japan)

Detailed Program

Thursday, July 31

Plenary Lecture II — Conference Hall — 09:00-10:00

Progress in research on the positronium negative ion and studies using the positronium beam produced by its photodetachment
Yasuyuki Nagashima (Tokyo University of Science, Japan)
Chair: Ann Orel (University of California, Davis, USA)

Coffee Break — 10:00-10:30

Parallel Session III A: FEL — Conference Hall — 10:30-12:30

Chair: Till Jahnke (MPIK Heidelberg, Germany)

PR **Quantum-state-resolved X-ray multiphoton ionization dynamics**
Sang-Kil Son (CFEL, DESY, Germany)

PR **Chemical Insights from Resonant Auger Spectroscopy**
Rebecca Ingle (University College London, UK)

PR **Developments of Ultrafast gas phase XPS at SwissFEL**
Andre Al Haddad (Paul Scherrer Institute, Switzerland)

SR **Femtosecond response of highly charged ions to ultraintense X-ray pulses**
Moto Togawa (European XFEL, Germany)

SR **Probing intramolecular charge transfer in 4-aminobenzonitrile derivatives via time resolved XPS and XAS**
Smita Ganguly (Kansas State University, USA)

Parallel Session III B: Astro — Mid-sized Hall — 10:30-12:30

Chair: Kunihiro Okada (Sophia University, Japan)

SR **Visible-Near Infrared Photo-absorption in Zirconium Plasmas for Kilonova Studies**
Kirsten Dowd (University College Dublin, Ireland)

PR **Electron induced excitation of astrophysically relevant molecules**
Juraj Orszagh (Comenius University in Bratislava, Slovakia)

PR **Laboratory IR spectroscopy of ice: a key to interpreting astronomical observations in the JWST era**
Jennifer Noble (CNRS, France)

PR **Sulfur ion implantation effects on Europa analog alcohol ices**
Cíntia Aparecida Pires da Costa (University of Trento, Italy)

SR **Surface diffusion of free radicals on amorphous solid water**
Masashi Tsuge (Hokkaido University, Japan)

General Committee Meeting — Room 201+202 — 12:30-13:00

Lunch — 12:30-14:00

Parallel Session IV A: Storage Rings — Conference Hall — 14:00-16:00

Chair: Shaofeng Zhang (Institute of Modern Physics, Chinese Academy of Sciences, China)

PR **Merged-beams experiments at the Cryogenic Storage Ring**
Holger Kreckel (Max Planck Institute for Nuclear Physics, Germany)

SR **Mutual neutralization of C_{60}^{+} and C_{60}^{-} ions**
Michael Gatchell (Stockholm University, Sweden)

PR **The mutual neutralization of hydronium and hydroxide**
Alon Bogot (the hebrew university of jerusalem, Israel)

SR **Electron Transfer to Ar^{+} studied with a Reaction Microscope in a Cryogenic Storage Ring**
Felix Harald Herrmann (Max Planck Institute for Nuclear Physics, Germany)

PR **Collision-induced fragmentation of PAH ions studied in a cryogenic storage ring**
Mark Hugo Stockett (Stockholm University, Sweden)

Parallel Session IV B: Fundamental theory — Mid-sized Hall — 14:00-16:00

Chair: Igor Bray (Curtin University, Australia)

PR **Inelastic scattering of vortex electrons**
Sophia Strnat (Physikalisch-Technische Bundesanstalt, TU Braunschweig, Germany)

PR **Positron-molecule bound states, vibrational Feshbach resonances and annihilation**
Gleb Gribakin (Queen' s University Belfast, UK)

PR **A pedestrian approach to modeling atomic processes and behavior**
Stephan Fritzsche (Hemholtz-Institut Jena / GSI, Germany)

PR **The Bethe-Salpeter QED wave equation for bound-state computations of atoms and molecules**
Edit Matyus (ELTE, Eötvös Loránd University, Hungary)

Poster Session II — Room 107+108 — 16:00-18:30

Photon - Atom/Ion

Th001 **Relativistic calculations of electron–parent ion entanglement using the KRAKEN protocol**
Carl Leon Mikael Petersson, Benjamin Skadden, Eva Lindroth

Th002 **Xe 5p branching ratios in the vicinity of the inner-shell 3d thresholds: Effects of interchannel coupling and core relaxation**
Steven T. Manson, Rahul Silva, C. Rasadi Munasinghe, Pranawa C Deshmukh, Abhishek Verma, Dawei Peng, Iyas Ismail, Tatiana Marchenko, Oksana Travnikova, Renaud Guillemin, Nicolas Velasquez, Maria Novella Piancastelli, John Bozek ,Marc Simon, Ralph Puettner

Th004 **Quantum coherence and inner-shell x-ray lasing in XFEL generated NLTE highly ionized and excited plasmas**
Jianmin Yuan, Jiaolong Zeng, Yongjun Li, Jianpeng Liu, Cheng Gao, Yongqiang Li

Th005 **Spectroscopy of muonium and muonic atoms for precise determination of the muon magnetic moment**
Hiroyuki A. Torii, on behalf of the MuSEUM Collaboration

Th006 **Role of the Binding Energy on Nondipole Effects in Single-Photon Ionization**
Madeleine Schmidt

Th008 **Transmission of structured vector beams through magnetized and optically pumped media**
Riaan Philipp Schmidt, Richard Aguiar Maduro, Anton Peshkov, Sonja Franke-Arnold, Andrey Surzhykov

Th010 **Towards Attosecond FEL Pulse Diagnostics At FLASH II - A Dedicated Angular-Streaking Beamline**
Lasse Wülfing, Markus Ilchen, Kai Tiedtke, Wolfram Helml

Th012 **Nondipole Effects in Few-Photon Ionization of Helium: Signature of Electron Correlation**
Liang-You Peng

Th015 **Polarization transfer in the inner–shell Compron scattering**
Andrey Surzhykov, Anna Maiorova, Wilko Middents, Jonas Sommerfeldt

Th016 **A Continuous Pump-Probe Experiment to Observe Rydberg Wave Packet Dynamics**
Shruti Majumdar

Th017 **Resonant photon scattering by highly charged ions exposed to external fields**
Jan Richter, Moto Togawa, Mieczyslaw Witold Krasny, José R. Crespo López-Urrutia, Andrey Surzhykov

Th018 **Reconstruction of attosecond harmonic beating by interference of multiphoton transitions: Time-dependent theory**
Renata Della Picca, Matías Ocello, Sebastián López, Diego Arbó

Th019 **Circular dichroism in multiphoton ionization of resonantly excited helium ions near channel closing**
Niclas Wieland, Filippa Dudda, René Wagner, Philipp Schmidt, Markus Ilchen, Klaus Bartschat, Michael Meyer

Th020 **Characterization of states of Ra with relativistic variational R-matrix method**
Miguel Alarcon, Chris H. Greene

Th021 **Enhancing Red Emission in InGaN/GaN Core-Shell Nanowires via Laser-Driven Recrystallization**
Se-Bee Shin, Yong-Ho Ra, Yong-Ho Kim, Dae-Young Um, Jeong-Kyun Oh, Sung-Un Kim, Vignesh Veeramuthu, Jae-Hong Ju, Geon-Yeong Kim, Jong-Su Kim

Th022 **Coherent Control of Extreme Ultraviolet Emission with attosecond resolution**
Jiaao Cai, Bengtsson Samuel, Sizuo Luo, Dajun Ding, Mingxuan Li, Huiyong Wang, Jialong Li, Wentao Wang, J Mauritsson, Liyuan Wang

Th023 **Spectroscopic Characteristics of Ce- to Gd-like Highly Charged Ions in the Water Window range**
Dingbao Song, Daji Kato, Hayato Ohashi, Hiroyuki A Sakaue, Nobuyuki Nakamura

Th025 **Observation of QED Effects and Configuration Interaction in Highly Charged Au Ions Produced by High Power Laser**
Bubo Ma, Jieru Ren, Shaoyi Wang, Luyou Xie, Guoqing Zhang, Dieter H.H. Hoffmann, Quanping Fan, Weimin Zhou, Chenzhong Dong, Yongtao Zhao

Th026 **Theoretical analysis of an isolated attosecond pulse generation using subcycle driving laser pulse**
Rambabu Rajpoot, Eiji J Takahashi

Th027 **Excitation of argon using strong-field light**
Robert Sang, Y.N. Yang, A.J. David, X.M. Tong, I.V. Litvinyuk, R.T. Sang

Th029 **Ultrafast correlation dynamics during high-harmonic generation in multi-electron atoms**
Iva Brezinova, Katharina Buczolich, Takeshi Sato, Kenichi Ishikawa, Fabian Lackner, Joachim Burgdörfer

Th030 **Design of a Free Electron Interferometer**
Nicholas L Wong, Paula Roth, Jonathan Stindl, Angelina Geyer, Nils Anders, Max Hofmann, Pia Daum, Sina Jacob, Maksim Kunitski, Sebastian Eckart, Reinhard Dörner

Photon - Molecule/Cluster

Th035 **Photoelectron emission from silver clusters on substrates**
Mikhail Bednov

Th036 **Rovibronic Spectra of Carbon Monoxide Dication CO^{2+}**
Xavier Huet, Antoine Aerts, Nathalie Vaeck, Xavier Urbain, Matthieu Génévriez

Th037 Probing the mechanism underpinning the photoinduced Wolff rearrangement using time-resolved X-ray scattering
Felix Allum, Kenzo Marmorat, Andrew Orr-Ewing, Basile Curchod

Th038 Disentangling the relaxation cascade of K-shell ionized argon clusters using multi-coincidence spectroscopy
Niklas Golchert, Lutz Marder, Yusaku Terao, Emilia Heikura, Madhusree Roy-Chowdhury, Minna Patanen, Oksana Travnikova, Arno Ehresmann, Andreas Hans

Th039 Chirality induced orientation by 3D alignment mechanism
Yoshi-Ichi Suzuki

Th040 Multiple Auger Decays of Core-excited States of O_2
Kenta Iida, Yasumasa Hikosaka, Pascal Lablanquie, Kaneyasu Tatsuo, Adachi Junichi, Hirokazu Tanaka, Isao Suzuki, Motoki Ishikawa, Takeshi Odagiri

Th042 Role of Global and Instantaneous Angular Velocity of the Laser Field in Strong Field Ionization of Chiral Molecules
Max Hofmann, Sina Marie Jacob, Nils Anders, Angelina Geyer, Lothar Ph H Schmidt, Till Jahnke, Maksim Kunitski, Markus S Schöffler, Reinhard Dörner, Sebastian Eckart

Th043 Deep core ionization in halogenated biomolecules – fundamental physics and implications for radiosensitizer drug molecules
Edwin Kukk, Oksana Travnikova, Marta Berholts, Kerttu Pusa, Tatiana Marchenko, Pamela Svensson, Marc Simon, Sylvain Betoule

Th044 Imaging the rovibrational ground state of the helium-neon dimers $^4He^{20}Ne$ and $^4He^{22}Ne$
Jan Kruse, Janina Schröder, Dörte Blume, Reinhard Dörner, Maksim Kunitski

Th045 Intercluster Coulombic Decay of Giant and High-Energy Plasmon Resonances in $Na_{20}@C_{240}$
Hari Varma Ravi, Rasheed Shaik, Himadri S. Chakraborty

Th046 How electron scattering impacts photoelectron spectroscopy of liquid water and aqueous solutions
Stephan Thuermer, Bernd Winter, Iain Wilkinson

Th047 Exploring non-local decay in micro-solvated metal ions systems by using X-ray spectroscopy techniques
Alan Guilherme Falkowski, Arnaldo Naves de Brito

Th049 Attosecond control of orientation -selective molecular tunneling ionization by phase-controlled, two-color laser fields: Molecular control at room temperature
Hideki Ohmura

Th050 AIMD study on dissociation dynamics of photo-induced doubly ionized OCS and dynamically hidden reaction path
Ryuto Kambara, Takuro Tsutsumi, Kenji Furuya, Tetsuya Taketsugu

Th051 Negative-ion formation via ion-pair photodissociation of water molecule
Akiko Oda, Haruka Kamata, Isao H Suzuki, Takeshi Odagiri

Th052 Photoelectron-Illuminated Formic Acid: Fragmentation Dynamics at the Carbon K-Edge
Ryan Enoki, Itzik Ben-Itzhak, Vern Davis, Till Jahnke, Reinhard Dorner, Thorsten Weber, Daniel Slaughter, Markus Schoffler, Joshua Williams

Th053 Investigations of the decay dynamics of doubly charged polycyclic aromatic nitrogenated hydrocarbons
Umesh Ramakant Kadhane, Arun Subramani, Lorenzo Avaldi, Paola Bolognesi, Selvaraj Muthuamirthambal, Nitish Pal, Kaarthick Ramanathan, Robert Richter, Meloottayil Viswanathan Vinitha, Umesh Ramakant Kadhane

Th054 Asymmetric photoelectron momentum distribution from multi-orbital photoionization of carbon monoxide
Jean Marcel Ngoko Djiokap, Harindranath B. Ambalampitiya

Th055 Time-dependent orbital-optimized coupled-cluster methods families for multielectron and molecular dynamics in a strong laser field
Haifeng Lang, Takeshi Sato

Th057 **NIR-Vis-UV photodissociation of O_4^+ studied by mass-analyzed ion-imaging technique**
Yu Watabe, Takumi Koshiba, Yuri Ito, Manabu Kanno, Keijiro Ohshimo, Fuminori Misaizu

Th058 **Electron recollisional excitation on dissociative ionization of OCS in asymmetric two-color intense laser fields**
Tomoyuki Endo, Tomohito Otobe, Ryuji Itakura

Th059 **Investigation of the influence of hydrogen bond on the dissociation of pyrrole dimer**
Lu Wu, Jiaqi Zhou, Xiaokai Li, Lanhai He, Xueguang Ren, Chuncheng Wang, Dajun Ding

Th060 **Photoelectron-photoion coincidence imaging studies on the above threshold ionization of CF_4 and CH_4**
Taiki Kimura, Naoto Hirabayashi, Yasuhiro Ohshima, Masakazu Yamazaki

Th061 **Extracting the sub-attosecond photoemission delays of asymmetric molecules from double-slit-interference phtotelectron spectra**
Kunlong Liu, Yidian Tian

Th062 **Time-resolved three-body fragmentation of methane in strong laser fields**
Weiyu Zhang, Nikolas Rapp, Alexander Dorn, Thomas Pfeifer, Robert Moshammer

Th063 **Attosecond Spectroscopy Reveals Spontaneous Symmetry Breaking in CO_2 Photoionization**
Mingxuan Li, Leshi Zhao, Huiyong Wang, Robin Weissenbilder, David Busto, Mathieu Gisselbrecht, Kiyoshi Ueda, Sizuo Luo, Zheng Li, Dajun Ding

Th064 **Photoelectron emission delay of N_2 in the molecular frame**
Andreas Pier, Niklas Melzer, Owen Dennis McGinnis, Laura Sommerlad, Dmitrii Rezvan, Nikolay Novikovskiy, Philipp Demekhin, Florian Trinter, Reinhard Dörner, Till Jahnke

Th065 **Orientation dynamics of OCS molecules in a field-free space**
Shinichirou Minemoto, Shinichirou Minemoto, Naoki Hara, Maruf M. Hossain, Hirofumi Sakai

Th066 **Resonance-Enhanced Two-photon Ionization and Proton Transfer Dynamics in Pyridine Clusters**
Deepthy Maria Mootheril Thomas, Xueguang Ren, Mevlut Dogan, Thomas Pfeifer, Alexander Dorn

Th067 **Tracking Attosecond Electron Motion in a Photoionized Molecule with Theoretical Transient X-Ray Absorption Spectroscopy**
Gilbert Grell, Piero Decleva, Alicia Palacios, Fernando Martín

Th068 **Inferring the role of nitrogen position in the single ring aromatics via UV-induced multiphoton ionization: aniline and picoline isomers**
Muthuamirthambal Selvaraj, Binduja Panja, Rejila J, Sreeja R, Theertha M, Vishnumaya A, Umesh Kadhane

Heavy Particles, Cold Matter - Atom/Ion

Th113 **Studies on Absolute Charge Exchange Cross Sections in *nl*-Resolution for O^{6+} Colliding with He**
Tianming Meng, Mingxuan Ma, Pufang Ma, Hao Yin, Yijiao Wu, Bingsheng Tu, Yaming Zou, Baoren Wei

Th114 **Target excitation and ionisation in $\bar{p}$ + He(1^1S, 2^3S) collisions**
Nicholas W. Antonio, Alisher S. Kadyrov

Th115 **Time-resolved plasma-assisted laser spectroscopy of Be-like Ar^{14+}: Experimental study on the relativistic and QED effects on its atomic structure**
Naoki Kimura, Yoshiki Miya, Daiki Ito, Priti Priti, Daiji Kato, Masaaki Baba, Susumu Kuma, Toshiyuki Azuma, Nobuyuki Nakamura

Th116 **The fragmentation dynamics of aromatic molecules induced by electron-impact triple ionization**
Xiaorui Xue, Jiaqi Zhou, Xintai Hao, Lei Wang, Peng Li, Qibo Ma, Xueguang Ren

Th118 **Stopping power in transition metals, the importance of d-electron contribution at low-impact energies**
Claudia Carmen Montanari, Jesica Peralta, Alejandra Mendez, Darío Mitnik

Th119 **Dependence of Collisional Ionization for Noble Gases on Fast Molecular Ion Orientation**
Mayumi Umemura, Yoshiaki Kumagai, Kunikazu Ishii

Th120 **Collisional spontaneous ionization of Rydberg gas generated by picosecond pulse excitation of laser-cooled atoms**
Takuya Matsubara, Vikas Singh Chauhan, Seiji Sugawa, Michiteru Mizoguchi, Hikaru Tamura, Takafumi Tomita, Sylvain de Léséleuc, Kenji Ohmori

Th121 **Charge state evolution and energy loss measurement of laser-accelerated quasi-monoenergetic carbon ions in porous foam and partially ionized dense plasma**
Jieru Ren, Yun Liu, Bubo Ma, Dieter Hoffmann, Zhigang Deng, Wei Qi, Weimin Zhou, Rui Cheng, Guoqing Xiao, Yongtao Zhao

Th122 **State-selective electron capture in $Ar1^{6+} - H(1s)$ collisions**
Akshit Mahesh Kotian, Nicholas W Antonio, Oleksandr Marchuk, Alisher S Kadyrov

Th123 **Target Density Effects on Charge Transfer of Laser-Accelerated Carbon Ions in Dense Plasma and Porous foam**
Yongtao Zhao, Jieru Ren, Bubo Ma, Lirong Liu, Zhigang Deng, Wei Qi, Shaoyi Wang, H.H.Ditter hoffomann, Leifeng Cao, Weimin Zhou

Th124 **Study of collisions between different hyperfine and Zeeman states of alkali atoms in thermal vapour cells**
Pei-Chen Kuan, Xu-Dong Liu

Th125 **Transition probabilities for the excitation of helium by proton and antiproton impact**
Ladislau Nagy, Zsuzsánna Bálint, Sándor Borbély

Th126 **Transfer ionization dynamics in collisions involving light ions and helium atoms**
Karoly Tökési, N. Bachi, S. Otranto

Th127 **State selective charge-exchange cross sections in collisions between C^{q+} ions with sodium atoms**
Karoly Tökési, B. G. Csillag, G. Anda, D. Dunai, D. Nagy, D. I. Réfy, M. Vécsei, S. Zoletnik

Heavy Particles, Cold Matter - Surface

Th141 **O_2 plasma treating of space-technology polymers**
Cíntia Aparecida Pires da Costa, Nadhira Laidani, Gloria Gottardi, Lorena Maines, Matteo Michielan, Luca Matteo Martini, Paolo Tosi, Daniela Ascenzi

Th142 **Charge conversion and molecular dissociation using crystal surface strippers in AMS downsizing**
Satoshi Jinno, Akihiro Matsubara, Natsuko Fujita, Kenji Kimura

Th143 **Development of a new apparatus for measuring the yield of ion-induced electron emission from metal surfaces**
Taiki Fujita, Jinseok Kim, Masaaki Matsukuma, Masamitsu Hoshino

Th144 **Linear Paul trap apparatus for studying surface interactions between paraffin and alkali-metal vapor**
Akira Kamada, Atshushi Hatakeyama

Th145 **Isomer-dependent fast-ion-induced reactions on 1- and 2-propanol droplet surfaces**
Takuya Majima, Sota Otsuka, Taichi Takemura, Hidetsugu Tsuchida, Manabu Saito

Th146 **Reaction of low-energy molecular ions with an ice surface at low temperature**
Yochi Nakai, W.M.C. Sameera, Kenji Furuya, Hiroshi Hidaka, Atsuki Ishibashi, Naoki Watanabe

Heavy Particles, Cold Matter - Other

Th147 **Ionospheric plasma characterization using ARIS instrument in low earth orbit**
Raghunandanan Sreeja, C. S. Anoop, Selvaraj Muthuamirthambal, Sudharshan Kaarthik, Sreehari B. Nair, Sreelakshmi Palakkal, V. S. Sooraj, C. P. Veena, A. Vishnumaya, Umesh Ramakant Kadhane

Th148 **Improvement of the calculation method for X-ray Emission Spectroscopy based on Slater' s transition state theory**
Osamu Takahashi, Yuika Watari

Th149 **Extracting the geometric phase from the ensemble of trajectories**
Huan Yang, Yujun Zheng

Poster Session II — Room 104+105 — 16:00-18:30

THURSDAY

Photon - Surface

Th069 **Controlled photoionization of graphene under the action of laser pulses**
Fernando Aguilar-Galindo, Javier Aizpurua, Andrei Borisov

Th070 **Sub-Cycle Optical Control of Multiple Valleys in SnS Monolayer**
Arqum Hashmi, Kazuhiro Yabana, Tomohito Otobe, Kenichi L. Ishikawa

Th071 **Theoretical study of excitonic effects in 2D materials by transient absorption and sideband generation.**
Aday Cárdenas, Álvaro Jiménez-Galán, Rui Emmanuel Da Silva

Th072 **Generation of Picosecond Ion Pulses using Laser-Stimulated Desorption**
Alexander Redl, Markus Goldberger, Richard Wilhelm

Th073 **Ab initio calculation of the real-space current distribution in graphene driven by strong laser fields**
Siyuan Li, Mizuki Tani, Arqum Hashmi, Kenichi L Ishikawa

Th074 **Highly oriented pyrolytic graphite chemical bonding structure after gallium implantation**
Karoly Tökési, T.A.O. Jafer, H.A.A. Abdelbagi, A. Sulyok, G.Z. Radnóczi, J.B. Malherbe

Th152 **Characteristics of ion fluxes from laser-produced tungsten plasmas**
Hayato Ohashi, Tsukasa Sugiura, Hayato Yazawa, Takeru Niinuma, Takeshi Higashiguchi

Photon - Other

Th075 **High Harmonic Generation from a Noble Metal**
Alvaro Jimenez-Galan, Shima Gholam-Mirzaei, Aleksey Korobenko, Paul Corkum, Vladimir Shalaev, Nida Haram, David Purschke, Soham Saha, Giulio Vampa, Rui Silva

Th076 **Development of a high-coherence ultrafast electron diffraction setup: propagation of electron beams from plate-type and tip-type photocathodes**
Riyo Nagao, Gael Privault, Yui Iwasaki, Godai Noyama, Yusuke Arashida, Hiroo Suzuki, Yasuhiko Hayashi, Jun-ichi Fujita, Arnaud Arbouet, Masaki Hada

Th080 **Generation and characterization of giant isolated attosecond pulses: Toward attosecond nonlinear experiments**
Dianhong Dong, Hushan Wang, Bing Xue, Kotaro Imasaka, Natsuki Kanda, Yasuo Nabekawa, Eiji J. Takahashi

Lepton - Atom/Ion

Th082 **High-resolution dielectronic recombination of berylliumlike gold ions at the CRYRING@ ESR storage ring**
Mirko Looshorn, Carsten Brandau, Mike Fogle, Jan Glorius, Volker Hannen, Pierre-Michel Hillenbrand, Claude Krantz, Michael Lestinsky, Reinhold Schuch, Stefan Schippers

Th083 **Coulomb focusing and dipolar focusing effects in laser-assisted electron and positron collisions**
Ilya Fabrikant, Mbuso Matfunjwa, Harindranath Ambalampitiya

Th084 **The ARTEMIS Experiment: g-factor measurement through precision spectroscopy of heavy highly charged ions**
Arya Krishnan, Bianca Reich, Patrick Baus, Gerhard Birkl, Kanika Kanika, Jeffrey William Klimes, Manuel Vogel, Wolfgang Quint

Th085 **Theoretical study of electron dynamics at the Amusia-Cooper minimum**
Rezvan Tahouri, Rezvan Tahouri, Marcus Dahlström, Eva Lindroth

Th086 **Numerical Study of Classical Dynamics of Electron Co-trapped with Ion in Two-frequency Paul Trap**
Michal Tarana, Payman Mahmoudi, Michal Hejduk

Th087 **Investigation of energy levels and E1, M1, E2, and M2 transitions in Cd-like Sm^{14+}**
fanhu Qu, B L Li, X W Zhang, X Liu, B Tu, K Yao, Y Yang, B Wei, Y Zou, J Xiao

Th090 **Measurement of Stopping Power for Positive Muons Using USM in J-PARC**
Ayato Miura, Kazuhiko Ninomiya, Makoto Inagaki, Sohtaro Kanda, Yutaka Ikedo, Yu Oishi, Koichiro Shimomura, Yuga Nakazawa, Takashi Yoshimura

Th091 **Testing reachability of the plane wave impulse approximation in terms of the ratio of spectroscopic factors for (e, 2e) ionization of Ne 2s and 2p electrons**
Masakazu Yamazaki, Isao Nakajima, Yuri Popov, Salim Houamer, Masahiko Takahashi

Th092 **Spin polarization effect on linear polarization of photon emission following resonant electron capture of lithiumlike ions**
Zhongwen Wu, Yanzhen Wang

Th093 **Field-Induced Recombination as an Effective Pathway for Radiative Recombination Enhancement**
Xinwen Ma, Kaiqiang Shi, Zhongkui Huang, Hanbing Wang, Xubin Zhu, Stefan Schippers, Xinwen Ma

Th094 **A decision tree algorithm to improve core-excited autoionizing levels for computing dielectronic recombination rates**
Joseph Isaac Garcia, Stuart Loch, Michael Fogle, Clayton Chilen, Christopher Fontes

Th095 **Angular asymmetries and optical theorem in the scattering of ultrashort elec-tron wave packets**
Yuya Morimoto, Lars Bojer Madsen

Th096 **Spectroscopy of muonic argon 4f-3d transition x-rays with TES microcalorimeters for the precision test of bound-state quantum electrodynamics**
Taekshi Y. Saito, Toshiyuki Azuma, Goncalo Baptista, Daniel T. Becker, Doublas A. Bennett, William B. Doriese, Joseph W. Fowler, Hiroyuki Fujioka, Johnathon D. Gard, Tadashi Hashimoto, Ryota Hayakawa, Tasuku Hayashi, Takashi Higuchi, Yuto Ichinohe, Joseph Imrek, Paul Indelicato, TadaAki Isobe, Sohtaro Kanda, Sintaro Kaneko, Naritoshi Kawamura, Kaito Kawasaki, John A. Mates, Yasuhiro Miyake, Kelsey M. Morgan, Hirofumi Noda, Galen C. O' Neil, Shinji Okada, Takuma Okumura, Nancy Paul, Dan R. Schmidt, Kouichiro Shimomura, Patrick Strasser, Dan S. Swetz, Tadayuki Takahashi, Motonobu Tampo, Yuichi Toyama, Joel N. Ullom, Izumi Umegaki, Joel C. Weber, Shinya Yamada, Daikang Yan

Th097 **Polarization measurements of the VUV transition in N^{4+} excited by electron collisions**
Nobuyuki Nakamura, Ryoko Ishikawa, Motoshi Goto

Lepton - Molecule/Cluster

Th098 **Theoretical study of valence excitations in $CF_{4-m}Cl_m$ (m = 1 - 4) on the basis of generalized oscillator strengths**
Noboru Watanabe, Masahiko Takahashi

Th099 **Cross sections for electron collisions with LiH and Li_2**
Haadi Umer, Liam H Scarlett, Adam J C Singor, Igor Bray, Mark C Zammit, Dmitry V Fursa

Th100 **Fragmentation dynamics through geometrical distortion in low-energy electron attachment to CS_2**
Jimena Gorfinkiel, Anirban Paul, Daniel Slaughter, Sylwia Ptasinska, Dhananjay Nandi, Ian Carmichael, Dipayan Chakraborty

Th101 **Time-of- flight mass spectrometer utilizing ion attachment method**
Yasuhiro Sakai, Kazuma Inoue

Th102 **Leptonic collisions from astrophysical molecules.**
Ashutosh Yadav, Bobby Antony

Th104 **Doubly-differential electron-impact ionization of ammonia and pyrimidine - DWBA with single-center expansion and experiment**
Mareike Dinger, Woon Yong Baek

Th106 **Positron scattering from methane and water molecules**
Malay Purkait, Manas Mondal

Th107 **Scattering involving bound states and the ionization continuum: Dissociative recombination and double charge transfer in H_2**
Ann E Orel, Asa Larson, Johan Hornquist

Th109 **Energy loss spectroscopy of ionic liquids by electron impacts**
Yuta Endo, Junichi Adachi, Masamitsu Hoshino

Th110 **Investigation of chemical environmental effect on muon capture process and identification of chemical state of muon capturing atom**
Kazuhiko Ninomiya, Meito Kajino, Akihiro Nambu, Makoto Inagaki, Takuto Kudo, Akira Sato, Kentaro Terada, Dai Tomono, Yoshitaka Kawashima, Yoichi Sakai, Tsutomu Takayama, Atsushi Shinohara

Th111 **Electron induced fragmentation of pentafluorophenyl triflate, a potendial photo acid generator for chemically amplified extreme ultraviolet lithography resists; Dissociative electron attachment.**
Oddur Ingólfsson, Monica Mendes, Pedro Guerra, Reza Tafrishi, Fabian Holzmeier, Filipe Ferreira da Silva

Th153 **Quantum Monte Carlo study on positron binding to atomic anion dimers**
Masanori Tachikawa

Heavy Particles, Cold Matter - Molecule/Cluster

Th129 **Electronically resolved excitation in proton collisions with H_2**
Corey Plowman, Liam Scarlett, Mark Zammit, Igor Bray, Dmitry Fursa

Th130 **Experimental Observations of Efficient Relaxation of highly Excited Water Dications into $D^+ + O^+ + D$**
Jiaqi Zhou

Th131 **Methanol formation via radical reactions with transient diffusion on amor-phous solid water at low temperatures**
Hiroshi Hidaka, Arisa Iguchi, Atsuki Ishibashi, Yasuhiro Oba, Naoki Watanabe

Th132 **Surface reactions of sulfur-bearing molecules with hydrogen atoms on amor-phous solid water at low temperatures**
Yasuhiro Oba, Thanh Nguyen, W.M.C. Sameera, Naoki Watanabe

Th133 **Charge transfer cross-section measurements for understanding molecular ion loss processes in the Earth' s magnetosphere**
Hajime Tanuma, Miwa Itabashi, Miyabi Nishi

Th134 **Experimental Evidence for Double Intermolecular Coulombic Decay in Bio-Relevant Molecular Dimers**
Xintai Hao, Xiaorui Xue, Jiaqi Zhou, Xinyu Zhang, Xiaokai Li, Yongtao Zhao, Chuncheng Wang, Sizuo Luo, Dajun Ding, Xueguang Ren

Th136 **A new generation of compact transportable cryogenic electrostatic storage device: Polar Mini-Ring**
Suvasthika INDRAJITH, Guillaume MONTAGNE, Laurent NAHON, Serge MARTIN, Christine JOBLIN, Jérôme BERNARD

Th137 **Detection of recurrent fluorescence from 1-cyanonaphthalene cations using an electrostatic ion beam trap**
Manabu Saito, Yudai Watanabe, Rihito Fukuzaki, Takuya Majima, Hidetsugu Tsuchida

Th138 **Fragmentation dynamics of SO_2^{2+} in collisions with energetic protons**
Sandeep Bajrangi Bari, Aditya H. Kelkar

Th139 **Fermi resonance in the radiative vibrational cooling dynamics of N_2O^+**
Sakumi Harayama, Susumu Kuma, Naoki Kimura, Kiattichart Chartkunchand, Masaaki Baba, Tatsuhiro Murakami, Toshiyuki Takayanagi, Kiyoshi Yagi, Yuji Nakano, Takayuki Yamaguchi, Toshiyuki Azuma

Th140 **Collision-induced delayed fragmentation of alcohol molecules**
Tomohiko Nakao, Takuma Yanagawaya, Haruki Nakamura, Hidetsugu Tsuchida, Manabu Saito, Takuya Majima

Th150 **Resonant coherent excitation of Li-like U^{89+} $1s^22s - 1s^22p_{3/2}$: Towards absolute transition energy measurement**
Yuji Nakano, A Bräuning-Demian, T Saito, S Harayama, T Yamaguchi, N Kimura, Y Ueno, S Menk, KC Chartkunchand, A Ananyeva, H Bräuning, U Spillmann, A Kalinin, C Kleffner, M Steck, S Litvinov, C Heßler, R Heß, B Lorentz, W Nörtershäuser, K Mohr, K König, J Meisner, S Passon, Th Stöhlker, T Azuma

Th151 **Ion-neutral merged-beam experiment featuring novel tomographic 2D beam profiling**
Rin Ota, Ryuto Takemasa, Yukiya Hachiyama, Hiroya Tamaru, Yoko Shiina, Yuji Nakano

Public lecture 2 — Conference Hall — 19:00-20:30

Learning from Ainu Culture to Transform Society
Mokottunas Kitahara (Hokkaido University, Japan)
Chair: Naoki Watanabe (Hokkaido University, Japan)

Detailed Program

Friday, August 1

Plenary Lecture III — **Conference Hall** — 08:30-09:30

Rydberg 2.0: from precision spectroscopy to quantum many-body simulations and the quantum future
Hossein Sadeghpour (ITAMP - Harvard University, USA)
Chair: Tom Kirchner (York University, Canada)

IUPAP Prize talk — **Conference Hall** — 09:30-10:00

Extreme light trapping in ultrasmall nanostructures
Kirill Koshelev (Department of Electronic Materials Engineering, Australian National University, Australia)
Chair: Toshiyuki Azuma (RIKEN, Japan)

Coffee Break — 10:00-10:30

Parallel Session V A: Atto Quantum — **Conference Hall** — 10:30-12:30

Chair: Jan Marcus Dahlström (Lund University, Sweden)

PR **Control of Attosecond Entanglement and Coherence**
Marc Vrakking (Max Born Institute, Germany)

PR **Photoelectron quantum state tomography**
David Busto (Lund University, Sweden)

PR **Quantum Electrodynamics of Strong Laser-Matter Interaction: The Ongoing Journey and Beyond**
Marcelo Fabian Ciappina (Guangdong Technion-Israel Institute of Technology, China)

PR **Quantum/Classical Hybrid simulations of Intense Laser-Driven Multielectron Dynamics**
Takeshi Sato (The University of Tokyo, Japan)

Parallel Session V B: El-molecule — **Mid-sized Hall** — 10:30-12:30

Chair: Xiangjun Chen (University of Science and Technology of China, China)

PR **Electron and photon induced fragmentation of pentafluorophenyl triflate, a potential photo acid generator for chemically amplified extreme ultraviolet li-thography resists.**
Oddur Ingólfsson (University of Iceland, Iceland)

PR **Dissociative electron attachment to 5-bromo-uracil: non-adiabatic dynamics on complex-valued potential energy surfaces**
Lucas Medeiros Cornetta (Instituto de Física da Universidade de São Paulo, Brazil)

SR **Surface Hopping for Dissociation in Electron-Molecule Collisions with Correlated Methods**
Ely Miranda (University of São Paulo, Brazil)

SR **Formation of CN^- anions in cyano aromatic compounds**
Rodrigo Rodrigues (Nova University Lisbon, Portugal)

SR **Differential-cross section study for laser-assisted (e,2e) process on H_2O molecule with Twisted elctrons**
Neha (Birla Institute of Science and Technology Pilani, India)

SR **Numerical simulation of chirped-laser-assisted electron diffraction for femtosecond molecular imaging**
Suzuka Dobashi (Tokyo Metropolitan University, Japan)

Lunch 12:30-14:00

Parallel Session VI A: Surface — Conference Hall — 14:00-15:45

Chair: Amine Cassimi (CIMAP, CEA/CNRS/ENSICAEN/UNICAEN, France)

PR **Coincidence detection of scattered ions and emitted electrons from 2D materials**
Richard Wilhelm (TU Wien, Austria)

SR **Does electron emission in highly charged ion collisions with surfaces occur above the surface or below?**
Victoria Vojtech (TU Wien, Austria)

PR **Electron Emission Mechanisms & Dynamics in Graphitic Surfaces: Establishing Causality via (e,2e) and TR-PEEM**
Alessandra Bellissimo (TU Wien, Austria)

SR **Fast atom diffraction through single- and multiple-domain graphene**
Xavier Urbain (Université catholique de Louvain, Belgium)

Parallel Session VI B: Bio — Mid-sized Hall — 14:00-15:45

Chair: Lokesh Tribedi (UPES, DEHRADUN, India)

PR **Photofragmentation of the radiation therapy enhancers**
Marta Berholts (Tartu University, Estonia)

PR **Probing Carbonyl Photochemistry Through Structural Imaging with X-ray Photons and Relativistic Electrons**
Alice Green (University of Edinburgh, UK)

PR **Theoretical investigation of fragmentation dynamics in biomolecular systems**
Marta Łabuda (Gdansk University of Technology, Poland)

SR **Investigation of C-K and N-K edge XAS of photochemical biomolecules for time-resolved soft X-ray absorption spectroscopy**
Fumitoshi Kumaki (High Energy Accelerator Research Organization, Japan)

Poster Session III — Room 107+108 — 15:45-18:15

Photon - Atom/Ion

Fr001 **Atomic β parameters for outer-shell photoemission in the vicinity of inner thresholds; effects of interchannel coupling and relaxation**
Steven T Manson, Rahul V Silva, C Rasadi Munasnghe, Pranawa C Deshmukh

Fr002 **Multiple photoionization of singly charged lanthanum ions**
Mirko Looshorn, Björn Michel Döhring, Pierre-Michel Hillenbrand, Michael Martins, Alfred Müller, Simon Reinwardt, Jörn Seltmann, Shu-Xing Wang, Stephan Fritzsche, Stefan Schippers

Fr003 **High harmonic spectroscopy of a nuclear system**
Tao Li, Hanxu Zhang, Xu Wang

Fr004 **Measurements of K-shell lines of neutral atoms from the central region of the Milky Way galaxy by the X-ray astronomy satellite XRISM**
Yuma Aoki, Kumiko K. Nobukawa, Masayoshi Nobukawa, Hideki Uchiyama, Shigeo Yamauchi, Anje Yoshimoto, Takashi G. Tsuru, Hiroyuki Uchida, Takuto Narita, Hironori Matsumoto

Fr005 **Systematic opacity calculations for kilonovae - Improved atomic data for singly ionized lanthanides -**
Daiji Kato, Masaomi Tanaka, Gediminas Gaigalas, Laima Kitoviene, Pavel Rynkun

Fr006 **Narrowing of EUV spectra by controlling effective critical density**
Hayato Yazawa, Shunya Yamamoto, Padraig Dunne, Gerry O' Sullivan, Shinichi Namba, Takeshi Higashiguchi

Fr007 **Optimizing Harmonic Generation Yield and Refocusing Conditions**
Vénus Poulain, Elisa Appi, Marius Plach, Chen Guo, Federico Vismarra, Cord Arnold, Anne L' Huillier, Per Eng-Johnsson

Fr010 **Photodissociation and rotational cooling dynamics of HF^+ in the cryogenic ion storage ring RICE**
Susumu Kuma, Naoki Kimura, Hikoma Takahashi, Sakumi Harayama, Masaaki Baba, Yuji Nakano, Takayuki Yamaguchi, Tatsuhiro Murakami, Toshiyuki Takayanagi, Toshiyuki Azuma

Fr011 **Measuring the attoclock and the Wigner time delay in the same experiment**
Nils Anders, Daniel Trabert, Angelina Geyer, Max Hofmann, Markus S Schöffler, Lothar Ph H Schmidt, Till Jahnke, Maksim Kunitski, Reinhard Dörner, Sebastian Eckart

Fr012 **Redirection and reshaping of intense extreme-ultraviolet radiation**
Yu He

Fr015 **Photoelectron wave packet interference by attosecond phase-control of synchrotron radiation**
Tatsuo Kaneyasu, Yasumasa Hikosaka, Shin-Ichi Wada, Hiroshi Ota, Hiroshi Iwayama, Kohei Shimizu, Masaki Fujimoto, Masahiro Katoh

Fr016 **Lifetimes of bound excited states of the lanthanum negative ion and implications for laser cooling: Experiment and Theory**
C. Wesley Walter, N. D. Gibson, F. E. Vassallo, J. Karls, R. D. Thomas, H. Zettergren, H. T. Schmidt, C. Cheung, M. S. Safronova, D. Hanstorp

Fr017 **A Gauss-Radau-Laguerre discrete variable representation for use in continuum electron dynamics**
Frank Yip, Tyler Venator, Robert Lucchese, C William McCurdy

Fr020 **Determination of ionic polarizability by nonsequential double ionization**
Huipeng Kang

Fr024 **Superfluoresence from helium ions: experiment and simulation**
James R Harries, Hiroshi Iwayama, Arisa Iguchi, Susumu Kuma

Fr025 **Atomic resonance using a static periodic magnetic field and its improvement aimed at applications to various atoms**
Yugo Nagata

Fr026 **Single and double photoionization of heliumlike boron ions**
Stefan Schippers, Alfred Müller, Igor Bray, Pierre-Michel Hillenbrand, Anatoli Kheifets, Michael Martins, Simon Reinwardt, Jörn Seltmann, Florian Trinter, Shuxing Wang

Fr027 **Coulomb Focusing in Attosecond Angular Streaking Measurement of Strong Field Tunneling Ionization**
Xiaokai Li, Xiwang Liu, Chuncheng Wang, Xiaohong Song, Weifeng Yang, Dajun Ding

Fr028 **Photoionized plasma production experiments in the synchrotron light source UVSOR**
Masahiro Kobayashi, Shinji Yoshimura, Hiroshi Ota, Hiroki Chimura, Kohei Shimizu, Tatsuo Kaneyasu, Masahiro Katoh

Fr030 **Relativistic calculations on the ionization potential of the super-heavy element Nh(113) and its lighter homologous**
Xiaobin Ding, Jiatao Lou, Chenzhong Dong

Fr034 **Saddle point analysis on enhancement of the few-cycle-driving high-order harmonic generation**
Zhi-Hong Jiao, Tian-Xiang Ma

Photon - Molecule/Cluster

Fr035 **Ultrafast Spin Migration in the Argon Dimer Cation**
Stefanos Carlström, Serguei Patchkovskii, Mikhail Yu Ivanov

Fr037 **Dissociation Dynamics of Tetrahydrofuran Studied via Pump-Probe Coulomb Explosion Imaging**
Xinhui Wang

Fr038 **Imaging the laser-induced dynamics of the helium trimer**
Jan Kruse, Qingze Guan, Dörte Blume, Reinhard Dörner, Maksim Kunitski

Fr039 **Microwave and far-infrared spectroscopy of methyl formate**
Ryoma Kakuda, Kaori Kobayshi, Masaharu Fujitake, Dennis W Tokaryk, Brant E Billinghurst, Nobukimi Ohashi

Fr040 **Comparative study on quinoline and isoquinoline dissociative ionization under UV and VUV radiation**
Muthuamirthambal Selvaraj, Binduja Panja, Arun S , Chiarinelli J , Ramanathan K, Avaldi L , Bolognesi P, Richter R , Safvan C.P , Umesh Kadhane

Fr041 **Photoionization of Chiral Molecules by Sub-Cycle Shaped Laser Fields**
Letizia Fede, Chris Sparling, Samuel Beaulieu, Dominique Descamps, Baptiste Fabre, Bernard Pons, Dave Townsend, Jason Greenwood, Valerie Blanchet, Yann Mairesse

Fr042 **First Principle Simulation of Attosecond XUV-Pump XUV-Probe Spectra for Small Organic Molecules**
Gilbert Grell, Jesús González-Vázquez, Piero Decleva, Alicia Palacios, Fernando Martín

Fr044 **A partial charge model to describe ultrafast chemical shifts**
Antonio Picon, Lorenzo Paoloni, Ana Martinez-Gutierrez, Pablo Estevez-Alonso, Dooshaye Moonshiram, Rebecca Boll, Michael Meyer, Daniel Rivas

Fr045 **Employing Time-Resolved XUV Photoelectron Spectroscopy to Probe Photochemistry in Methylated Cyclopentadiene**
Zane Phelps, Lisa Huang, Lauren Bertram, Daniel Rolles, Stefan Düsterer, Artem Rudenko, Martin Centurion, Adam Kirrander, Peter M. Weber, Markus Guehr

Fr046 **Investigating transient localized charges in small chiral molecules with free-electron lasers**
Markus Ilchen

Fr047 **Full-dynamics simulation methodology for laser-induced molecular dynamics**
Xiaoqing Hu

Fr048 **Chirality induced spin polarization in one-photon ionization by circularly polarized light**
Philip Caesar Flores, Stefanos Carlström, Serguei Patchkovskii, Andrés Felipe Ordóñez, Olga Smirnova

Fr049 **Non-ergodic dissociative valence double ionization of SF_6**
Ewa Erdmann, Emelie Olsson, Veronica Daver Ideböhn, Mans Wallner, Richard James Squibb, John Hugh David Eland, Raimund Feifel

Fr050 **Spin-Orbit Dynamics of Dissociating Oxygen after Laser-Induced Excitation**
Paula Roth, Pia Daum, Nils Anders, Angelina Geyer, Max Hofmann, Jan Kruse, Maksim Kunitski, Till Jahnke, Reinhard Dörner, Sebastian Eckart

Fr051 **Photoelectron Thermalization in Molecular Clusters Irradiated by Intense Femtosecond Laser Fields**
Lanhai He, Tao Yang, Dajun Ding

Fr052 **Determination of enantiomeric excess using Coulomb Explosion Imaging**
Sophia Gurevich, Max Hofmann, Nils Anders, Till Jahnke, Maksim Kunitski, Jürgen Stohner, Robert Berger, Sebastian Eckart, Reinhard Dörner, Markus Schöffler

Fr053 **Efficient indirect interatomic Coulombic decay induced by photoelectron im-pact excitation in Li doped large He nanodroplets**
Ltaief Ben Ltaief, Keshav Sishodia, Jakob Dall Asmussen, Abdul Rahman Abid, Sivarama Krishnan, Henrik B. Pedersen, Nicolas Sisourat, Marcel Mudrich

Fr054 **Spin-orbit entanglement in molecular dissociation**
Matjaž Žitnik, Janez Turnšek, Mateja Hrast

Fr055 **Time resolved Coupled Electron-Nuclear Dynamics of Methane Cation upon Photoionization Using an XUV Attopulse**
Gaurav Pandey, Francoise Remacle

Fr056 **Manipulating Intracluster Ion-Molecule Reactions in the Ethylene Dimer via Femtosecond-laser Intensity**
Chenyu Tao, Chen Liang, Shuncheng Yan, Jianting Lei, Xuan Yu, Tao Yang, Shaofeng Zhang, Xinwen Ma

Fr057 **An atom-by-atom view of a photochemical ring opening reaction**
Enliang Wang

Fr058 **Non-dipole effects in the core-level photoelectron angular distributions for molecular systems**
Ryosuke Nitta, Ryosuke Ikutaya, Yoshiaki Tamura, Kaoru Yamazaki, Kiyoshi Ueda, Yasumasa Hikosaka, Keisuke Hatada

Fr059 **Time-resolved angular dependence of two-body fragmentation of methane in strong laser fields**
Weiyu Zhang, Nikolas Rapp, Alexander Dorn, Thomas Pfeifer, Robert Moshammer

Fr061 **Bond angles of H_2O undergoing femtosecond structural dynamics estimated by Photoelectron Angular Distributions**
Satoshi Mitsui, Daichi Kobayashi, Shigeru Abe, Yoshiaki Tamura, Keisuke Hatada, Kiyoshi Ueda, Till Jahnke, Ludger Inhester, Robin Santra

Fr062 **Directly imaging excited state-resolved transient structures and dynamics of water with few-femtosecond and picometer resolution**
Chuncheng Wang

Fr064 **The role of molecular alignment in strong-field coulomb explosion**
Aydin Ashrafi-Belgabad, Reza Karimi, Mohammad Monfared, Parviz Parvin, Elnaz Irani, Joseph H. Sanderson

Fr065 **Ultrafast dynamics of molecular dimers in strong laser fields**
Yonghao Mi, Nida Haram, Shima Gholam-Mirzaei, Pooya Ghavami, Heide Ibrahim, Paul Corkum, André Staudte

Fr066 **Probing Ultrafast Dynamics in Core-Excited N_2O Molecules**
Kirsten Schnorr, Jonas Knurr, Emanuele Rossi, Sven Augustin

Fr067 **Virtual Diagnostics for FEL Experiments via Correlation**
Sven Augustin, Jonas Knurr, Andre AlHaddad, Christoph Bostedt, Gregor Knopp, Ana Sofia Morillo Candas, Antoine Sarracini, Ningchen Yang, Kirsten Schnorr

Fr156 **Femto-microsecond Electron transfer and Intermediates in Al/Fe CO_2 Photoreduction systems through Optical and X-ray spectroscopy**
Dooshaye Moonshiram

Fr157 **State selectivity in “Core Ionization” of methane**
Jyoti Rajput, J Stindl, A Cassimi, B Gervais, J B Williams, V Davis, Th Weber, I Ben-Itzhak, M S Schoffler, C P Safvan

Lepton - Other

Fr118 **Luminescence of Solvated Nucleotide Molecules Induced by Monochromatic Electron Irradiation**
Yoshiaki Kumagai, Hinako Imamura, Haruka Yuri, Kunikazu Ishii, Masatoshi Ukai

Fr119 **Detecting dark matter with atomic systems**
Ashlee Caddell, Benjamin Roberts

Fr120 **Accumulation of LINAC-based slow positron beams and its applications**
Koji Michishio, Hiroyuki Higaki, Akira Ishida, Nagayasu Oshima, Haruhiko Saitoh

Fr122 **High-resolution x-ray spectroscopy of muonic Xe with Transition-Edge Sensor microcalorimeters**
Takuma Okumura, Toshiyuki Azuma, Daniel T. Becker, Douglas A. Bennett, William B. Doriese, Joseph W. Fowler, Johnathon D. Gard, Baptista Gonçalo, Tadashi Hashimoto, Ryota Hayakawa, Tasuku Hayashi, Yuto Ichinohe, Jozsef Imrek, Paul Indelicato, Tadaaki Isobe, Sohtaro Kanda, Daiji Kato, Naritoshi Kawamura, John A. Mates, Yasuhiro Miyake, Kelsey M. Morgan, Hirofumi Noda, Galen C. O'Neil, Shinji Okada, Nancy Paul, Takeshi Saito, Dan R. Schmidt, Kouichiro Shimomura, Patrick Strasser, Daniel S. Swetz, Tadayuki Takahashi, Motonobu Tampo, Károly Tőkési, Xiao-Min Tong, Yuichi Toyama, Joel N. Ullom, Izumi Umegaki, Joel C. Weber, Shinya Yamada, Daikang Yan

Heavy Particles, Cold Matter - Atom/Ion

Fr123 **Impact-parameter selective Rydberg-Rydberg collision by optical tweezers**
Shuhei Yoshida, H. Hwang, S. Hwang, J. Ahn, J. Burgdoerfer

Fr125 **Modelling collisions of fully stripped and hydrogen-like oxygen ions with hydrogen**
Akshit Mahesh Kotian, Nicholas W Antonio, Alisher S Kadyrov

Fr126 **Atomic Physics at HIAF: Recent Milestones and Program Highlights**
Xinwen Ma, Shaofeng Zhang, Weiqiang Wen, ZHongkui Huang, Hanbing Guo, Dalong Guo, Xiaolong Zhu, Yong Gao, Shenyue Xu, Shuncheng Yan

Fr127 **Mutual Neutralization With Manipulated Initial State**
Rachel Poulose, Henning T Schmidt, Åsa Larson, Paul Martini, Ji MingChao, Dag Hanstorp, Stefan Rosén, Arnaud Dochain, Henning Zettergren, Henrik Cederquist

Fr128 **The Effect of Dielectronic Recombination on the Charge State Distribution of Fe Ion Beams**
Ziqian Zhao, Yongtao Zhao, Jieru Ren, Bubo Ma, Luyou Xie

Fr129 **Momentum Imaging of Electrons and Recoil Ions from Anion–Neutral Interactions at a Cryogenic Ion Storage Ring**
Felix Harald Herrmann, Weiyu Zhang, Michael Schulz, Alexander Dorn, Manfred Grieser, Florian Grussie, Holger Kreckel, Oldrich Novotny, Florian Trost, Andreas Wolf, Thomas Pfeifer, Claus Dieter Schroeter, Robert Moshammer

Fr130 **State-selective autoionizing double-electron capture in intermediate-energy C^{5+} + He collisions**
Dalong Guo, Hanfeng Yu, Xubin Zhu, Yong Gao, Kaizhao Lin, Xiaolong Zhu, Dongmei Zhao, Ruitian Zhang, Shaofeng Zhang, Xinwen Ma

Fr132 **Characterization of the FISIC platform for future ion-ion collision studies at CRYRING@ESR**
Emily Lamour, Mariette Jolly, Christophe Prigent, Vikar Ahmad, Dominique Vernhet, Alexander Gumberidze, Michael Lestinsky, Elena Tosi, Sébastien Steydli, Martino Trassinelli

Fr133 **Theoretical Study on the Dynamic Polarizability and Magic Wavelength of Yb Atoms.**
Yanmin Wang, Denghong Zhang

Fr134 **Electron-impact ionization of Se^{2+}**
Wenqing Lu, Denghong Zhang

Fr135 **X_L from Highly Charged Ions interacting with atoms, bulk and surfaces**
Christophe Prigent, C. V. Ahmad, M. Guerra, P. Indelicato, E. Lamour, J. Machado, S. Steydli, E. M. Tosi, D. Vernhet, M. Trassinelli

Fr136 **Probing molecular mutual neutralization reactions of atmospheric importance using the ion storage facility DESIREE**
Richard David Thomas, Mathias Poline, Arnaud Dochain, Paul Martini, Henrik Cederquist, Henning Zettergren, Henning T Schmidt, Shaun G Ard, Nicholas S Shuman, Albert A Viggiano

Fr137 **Many Body Density of States of a system of non interacting spinless fermions**
Remi Lefevre, Hovan Lee, Krissia de Zawadski, Gregoire Ithier

Heavy Particles, Cold Matter - Surface

Fr151 **Detection of surface magnetism by x-ray spectroscopy of hollow atoms**
Martino Trassinelli, Perla Dergham, Ch. Vikar Ahmad, Friedrich Aumayr, Emily Lamour, Christophe Prigent, Elena M. Tosi, Dominique Vernhet, Matthias Werl, Richard Wilhelm

Fr152 **Thickness-dependent structure of vapor-deposited ice under mesospheric water vapor conditions at 120 K**
Tetsuya Hama, Reo Sato, Kentaro Noguchi, Atsuki Ishibashi

Fr153 **Probing the Lifetimes of Hollow Atoms in Free Decay**
Karoly Tőkési, M. Werl, A. Niggas, S. Wrathall, V. Vojetch, F. Vukovic, F. Aumayr, R.A. Wilhelm

Fr154 **Two-electron processes in relaxation of Rydberg hollow atoms**
Marek Pajek

Fr155 **Energy Measurement of keV Particles via Phonon Sensing in Silicon-Coupled Superconducting Tunnel Junctions**
Shigeo Tomita, Shigetomo Shiki, Go Fujii, Kazuma Matsuda

Poster Session III — Room 104+105 — 15:45-18:15

FRIDAY

Photon - Surface

Fr069 **Chemical substitutions in ABX_3 perovskites: insights into band gap tuning for fotovoltaic devices**
Alberto S. Muzas, Cristina Reviejo , Fernando Aguilar-Galindo

Fr070 **Elimination of spurious oscillations on photoemission spectra**
Renata Della Picca, Martín Barlari, Diego Arbó, María Silvia Gravielle, Darío Mitnik

Fr071 **Enhanced Photoelectrochemical Water Splitting Performance of Gallium Nitride Nanorod Photoelectrodes via Graphene Oxide Coating**
Jae-Hong Ju, Yong-Ho Ra, Sang-wook Lee, Jeong-Kyun Oh, Dae-Young Um, Sung-Un Kim, Se-Bee Shin, Ha-Neul Eom, Cheul-Ro Lee, Jong-Su Kim

Fr072 **Imaging and Diagnostics of Plasma Processes with Scanning Femtosecond Laser-Induced Breakdown Spectroscopy (fs-LIBS)**
Afaf Almoabadi, Mac Hepburn, Reza Karimi, Stefan Pantazi, Joe Sanderson

Fr073 **First-principles simulations for attosecond transient absorption spectroscopy in 2D materials: Ultrafast valley switching in TMDC monolayers**
Shunsuke Yamada, Tomohito Otobe

Fr074 **Ytterbium based laser systems for High Energy and Peak-Power Applications**
Ignas Abromavičius, Oleg Pronin, Simas Butkus, Valdas Maslinskas, Giedrius Andriukaitis, Karolis Jurkus, Marco Arrigoni

Photon - Other

Fr076 **Impact of a smoothing parameter in breast radiotherapy planning**
Karoly Tőkési, T Ungvári, D. Szabó, D. Dunai, D. Nagy, D. I. Réfy, M. Vécsei, S. Zoletnik

Fr077 **Peculiarities of generation of twisted photons in two-frequency undulators**
Oleg Bogdanov, Sergey Bragin

Fr078 **Mimic the Big Bang with atomic ionization**
Qing-yu Cai

Fr079 **Photodissociation and radiative dissociation of positronium molecules**
Naoki Kamiya, Takuma Yamashita, Yasushi Kino

Fr080 **Improved Detection Efficiency with Tapered Microchannel Plates: Advancing EUV Detection Technologies**
Shiro MATOBA, Sohtaro KANDA, Tatsuo KANEYASU

Lepton - Atom/Ion

Fr081 **Abnormal behavior of photon and electron collision with atoms embedded in dense plasmas**
Jianmin Yuan, Jiaolong Zeng

Fr082 **Competition of the Breit interaction in angular anisotropy of Auger electrons**
Zhongwen Wu, Yi Li, Stephan Fritzsche

Fr083 **Influence of Tallis *q*-entropy on electron-impact ionization in non-Extensive Plasmas**
Young-Dae Jung, Myoung-Jae Lee

Fr084 **O_2^+ production coming from CO_2 single-event electron impact**
Ana Beatriz Monteiro-Carvalho, Lucas Mauricio Sigaud , Eduardo Chaves Montenegro

Fr085 **VUV Spectroscopy of highly charged tungsten ions with a compact electron beam ion trap**
Nobuyuki Nakamura, Daiki Ito, Shunsuke Ikeda, Kota Inadome, Genichi Kiyama

Fr087 **Precision Measurement of the Muon Mass Using a Ramsey-Borde Interferometer with Muonium Atoms**
Sohtaro Kanda

Fr088 **Observation of laser-assisted electron scattering with elliptically polarized laser**
Kenya Nomura, Suzuka Dobashi, Hiroto Ikeda, Takuma Okumura, Reika Kanya

Fr089 **Resonant High-Harmonic Generation: Role of multi-electron correlations in Resonant Electron Re-Scattering**
Yoad Aharon, Adi Pick, Ofer Neufeld, Gilad Marcus

Fr090 **Experiments at the CRYRING@ESR low-energy heavy ion storage ring**
Michael Lestinsky

Fr092 **Transition and thermodynamic properties of dense hydrogen plasma**
Madina M. Seisembayeva, Askhat T. Nuraly, Karlygash N. Dzhumagulova, Didar M. Shokov, Kuanysh O. Tlekova , Erik O. Shalenov

Fr093 **Transport coefficients of plasma under extreme conditions**
Karlygash N. Dzhumagulova, Erik O. Shalenov, Yerkhan A. Tashkenbayev, Yeldos S. Seitkozhanov, Madina M. Seisembayeva, Murat N. Jumagulov

Fr094 **Scattering and transport characteristics of electron from atomic nitrogen**
Md. Monirul Haque

Fr095 **Critical Minima and Maximum Spin Polarization for the Scattering of Electrons by Zinc Atom**
Md Shorifuddoza

Fr096 **Dirac' s Partial Wave Analysis for the Scattering of Electrons and Positrons by Oxygen Isonuclear Series**
Abul Kalam Fazlul Haque, A K Fazlul Haque, Abdullah H Islam, M Shorifuddoza, M Atiqur R Patoary, Bidhan C Saha, H Watabe, A K Basak, M Alfaz Uddin

Lepton - Molecule/Cluster

Fr097 **Scattering of electrons by CF_3H molecule**
M Nure Alam Abdullah, M Abdul Alim, M Shorifuddoza, A K Fazlul Haque, H Watabe, M A Uddin

Fr098 **Virtual photon exchange and electron transfer in Interparticle Coulombic Electron Capture**
Jimena Gorfinkiel, Graves Vincent, Senk Jan, Kolorenc Premysl, Nicolas Sisourat

Fr099 **State selective study of dissociation dynamics of molecular ion under electron impact**
Vishnu P, Akash Srivastav, Bhas Bapat

Fr100 **Elastic scattering cross sections of tungsten hexafluoride molecules by low-energy electron impact**
Kiyomasa Tsuzuki, Jinseok Kim, Masaaki Matsukuma, Masamitsu Hoshino

Fr101 **Development of an energy loss spectrometer for an attosecond electron beam line at 30 keV**
Yuichi Tachibana, Yuya Morimoto

Fr102 **Electron impact ionization cross sections phosphorus trihalides**
Geetha Dharmalingam, Dhanoj Gupta

Fr103 **Absolute cross sections for electron impact ionization and dissociation of plane-tary atmospheric molecules from 350 to 8000 eV**
Xu Shan, Weizhe Huang, Taj Wali Khan, Yuting Zhang, Nuo Chen, Chunkai Xu, Enliang Wang, Xiangjun Chen

Fr104 **Hydrogen mediated heavy atom roaming in negative ion**
Dariusz G. Piekarski, Smith Pataraprasitpon, Thomas F.M. Luxford, Roman Čurík, Jaroslav Kočišek

Fr105 **Electron induced fragmentation of pentafluorophenyl triflate, a potendial photo acid generator for chemically amplified extreme ultraviolet lithography resists; Dissociative Ionization.**
Oddur Ingólfsson, Monica Mendes, Pedro Guerra, Robert Richter, Fabian Holzmeier, Filipe Ferreira da Silva

Fr106 **Electron Capture Dynamics in Large Permanent Electric Dipole Moment Molecules**
Gorachand Das, Vaibhav S Prabhudesai, Y Sajeev

Fr107 **Observation of metastable cluster ions He_4^{+}* on helium nanodroplets**
Seiya Ohrui, Susumu Kuma, Amandeep Singh, Mizuhiro Kominato, James Harries, Reika Kanya, Asuka Fujii, Masaaki Baba, Andrey Vilesov, Toshiyuki Azuma

Fr109 **Measurement of the temperature of H_3^+ produced in the $H_2^+ + H_2$ reaction**
Lucas Sigaud, Moana Astigarreta, Eduardo Montenegro

Fr110 **The *hydrogen anomaly problem* in elastic electron backscattering revisited**
Satoru Kanaya, Yuuki Onitsuka, Masahiko Takahashi

Fr111 **Elastic positron scattering by molecules with the Schwinger Multichannel Method**
Francisco Fernandes Frighetto, Alessandra Souza Barbosa, Sergio d' Almeida Sanchez

Lepton - Surface

Fr112 **Negative charge delivery by proton-hole transfer in ice at 10 K: the role of surface radicals**
Naoki Watanabe, Kensei Kitajima, Yoichi Nakai, Masashi Tsuge, W. M. C. Sameera

Fr113 **Electric fields in cylindrical nanocavities induced by time-dependent charge distributions**
Juana Luisa Gervasoni, Juana Luisa Gervasoni, Silvina Segui, Nestor Arista, Isidro Villo-Perez

Fr114 **Development of operando hydrogen microscope for visualizing time-dependent hydrogen distribution**
Naoya MIYAUCHI, Taro YAKEBE, Yoshiharu MURASE, Masahiro KITAJIMA, Shoji TAKAGI, Akiko N Itakura

Fr115 **Measuring the time delay of photoelectron emission from single-crystal graphite in reciprocal space with RABBITT**
Florian Simperl, Florian Simperl, Felix Blödorn, Wolfgang Werner, Aref Imani, Paolo Carpeggiani, Gyula Halasi, László Óvári, Alessandra Bellissimo

Fr116 **Energy loss function of samarium determined from the reflection electron energy loss spectroscopy spectra**
Karoly Tökési, T.F. Yang, R.G. Zeng, L.H. Yang, A. Sulyok, M Menyhard, z.J. Ding

Fr117 **Stopping and image forces on a charged particle moving parallel to a phosphorene layer using *ab initio* data for conductivity**
Silvina Segui, Milad Moshayedi, Zoran Miskovic

Heavy Particles, Cold Matter - Molecule/Cluster

Fr138 **Controlling the Internal Excitation Temperature of H_3^+ Produced in a Duoplasmatron Ion Source**
Daniel Wolf Savin, Dmitry Ivanov, Caixia Bu, Pierre-Michel Hillenbrand, Daniel Schury, Xavier Urbain

Fr139 **Ionization of biological molecules considering partial atomic-charge distribution**
Claudia Carmen Montanari, Alejandra Mendez, Jorge Miraglia

Fr140 **Cerium oxide nanorods as a highly efficient scavenger of intracellular reactive oxygen species**
Moon Il Kim, Trung Hieu Vu, Kyusik Yun, Hyun Uk Lee

Fr141 **Recurrent fluorescence emitted from small carbon cluster ions**
Takeshi FURUKAWA, Hana Inoue, Koyuki Shinohara, Kana Iwamoto, Nene Yokoyama

Fr142 **Towards Magic-Wavelength Trapping for Rotational Coherence in Ultracold $^6Li^{40}K$ Polar Molecules**
Anbang Yang, Xiaoyu Nie, Victor Avalos, Canming He, Yiming Liu, Jacek Klos, Svetlana Kotochigova, Kai Dieckmann

Fr143 **Low temperature collisional cross-section of H_2CO from photodissociation in cold uniform supersonic flows**
Chinmai Sai Jureddy, Alberto Macario, Myriam Drissi, Omar Abdelkader Khedaoui, Ian R Sims

Fr144 **Role of electron-capture processes in dissociation dynamics of molecular ions created under slow ion impact**
Akash Srivastav, Vishnu Pullanchery, Bhas Bapat

Fr145 **The stopping of laser-produced Sn^{1+} ions in molecular hydrogen gas**
Luc Assink, Jelger Bijma, Thomas Nieboer, Klaas Bijlsma, Lucas Poirier, Emiel de Wit, Lennart Tinge, John Sheil, Oscar Versolato, Ronnie Hoekstra

Fr146 **Electron impact reactions and collisions between heavy species in radio-frequency plasmas**
Yuru Zhang, Na Li

Fr147 **Indications of high ICD yields in slow He^{2+} and He^+ collisions with Ne_2 dimers**
Darij Markian Starko, Tom Kirchner

Fr148 **Multiply differential study of vibrational dissociative capture in $p + D_2$ collisions**
Shruti Majumdar

Fr149 **Spectroscopic investigation of electron detachment of C_2^- using the TMU E-ring**
Shimpei Iida, Susumu Kuma, Shota Masuda, Masaaki Baba, Hajime Tanuma, Haruo Shiromaru, Toshiyuki Azuma

Fr150 **Cluster effects in collisions of hydrogen cluster ions with H_2 molecules**
Zoltán Juhász, Yiding Bai, Tieshan Wang, Jiangtao Zhao, Sándor T S Kovács, Péter Herczku, Richárd Rácz, Béla Sulik, Sándor Biri, Gergő Lakatos

Detailed Program

Monday, August 4

Plenary Lecture IV — Conference Hall — 09:00-10:00

The wondrous world of ions in EUV light sources for photolithography
Ronnie Hoekstra (Zernike Institute for Advanced Materials - University of Groningen, Advanced Research Center for Nanolithography, Netherlands)
Chair: Stefan Schippers (Justus-Liebig-University Giessen, Germany)

Coffee Break — 10:00-10:30

Parallel Session VII A: Ultrafast — Conference Hall — 10:30-12:30

Chair: Caterina Vozzi (CNR - Istituto di Fotonica e Nanotecnologie, Italy)

PR **Enhancement of harmonic generation in liquid water jet by resonant excitation in the mid-infared pulses**
Jiro Itatani (The University of Tokyo, Japan)

PR **Partial-wave resolved spin-orbit dynamics**
Dongdong Zhang (Jilin University, China)

SR **Attosecond-resolved Non-dipole Electron Dynamics**
Yueming Zhou (Huazhong University of Science and Technology, China)

SR **Coherent Control of Ultrafast Molecule Making**
Zohar Amitay (Technion-Israel Institute of Technology, Israel)

SR **Ultrafast dynamics in neutral donor-acceptor compounds excited by few-femtosecond ultraviolet laser pulses**
Stefano M. Cavaletto (Universidad Autónoma de Madrid, Spain)

SR **Ultrafast Kapitza-Dirac Effect in Strong Field Ionization**
Sina Marie Jacob (Goethe-Universität, Germany)

Parallel Session VII B: EI-collision — Mid-sized Hall — 10:30-12:30

Chair: Salim Houamer (University Ferhat Abbas Setif1, Algeria)

PR **Vibronic coupling of resonances in the collisions of electrons with molecules**
Martin Cizek (Charles University, Czech Republic)

PR **Interparticle Coulombic Electron Capture using an ab initio scattering approach**
Jimena Gorfinkiel (The Open University, UK)

SR **Shaking up ICEC: exploring nuclear dynamics in interparticle Coulombic electron capture**
Elena Marie Jahr (University of Tübingen, Germany)

SR **Enhanced Intermolecular Coulombic Decay in Thiophene Dimers**
Deepthy Maria Mootheril Thomas (Max Planck Institute for Nuclear Physics, Germany)

SR **Mapping the scattering potential from elastic *e*-atom study**
Aiswarya Rajendran (Indian Institute of Technology Patna, India)

SR ***L* and *M* satellite X-ray emission induced by electron impact**
Silvina Segui (Instituto de Física Enrique Gaviola, CONICET-Universidad Nacional de Córdoba, Argentine)

Lunch — 12:30-14:00

Parallel Session VIII A: Complex — Conference Hall — 14:00-16:00

Chair: Cholakka Parambath Safvan (Inter University Accelerator Centre, India)

PR **Semiconductor Wannier equations: a real-time, real-space approach to the nonlinear optical response in crystals**
Rui Emanuel Ferreira da Silva (Instituto de Ciencia de Materiales de Madrid (ICMM-CSIC), Spain)

PR **Relaxation dynamics following ionization of organometallic ferrocene molecules and clusters**
Sylvain Maclot (University Caen Normandie - CIMAP, France)

PR **Stopping power in matter, from the IAEA database to machine learning predictions and full theoretical models**
Claudia Carmen Montanari (University of Buenos Aires and IAEA, Argentine)

PR **Universality of Efimov states in mass-imbalanced cold-atomic mixtures**
Shimpei Endo (University of Electro-Communications, Japan)

Parallel Session VIII B: Theory etc — Mid-sized Hall — 14:00-16:00

Chair: Toru Morishita (The University of Electro-communications, Japan)

PR **Ruling out a saddle-point mechanism of ionisation in intermediate-energy ion-atom collisions**
Kade Spicer (Curtin University, Australia)

PR **A theoretical model for nondipole elliptically polarized laser-assisted photoionization**
Renata Della Picca (CONICET and CENTRO ATOMICO BARILOCHE, Argentine)

PR **Shepherd electron effects in multiple ionization of rubidium by circularly polarized intense laser fields**
Difa Ye (Institute of Applied Physics and Computational Mathematics, China)

SR **Theoretical investigation of non-local resonant inelastic X-ray scattering of the diatomic neon-argon system**
Alan Guilherme Falkowski (Universidade Estadual de Campinas, Brazil)

MONDAY

Poster Session IV — Room 107+108 — 16:00-18:30

Photon - Atom/Ion

Mo001 **Asymmetry of line profile in precision spectroscopy**
Alexey Anikin, Timur Zalialiutdinov, Dmitry Solovyev, Leonti Labzowsky

Mo003 **Optimizing frustrated ionization of argon atoms by combining time-delayed $\omega + 2\omega$ laser pulses of arbitrary ellipticity**
Klaus Bartschat, T Khurelbaatar, A J David, I V Litvinyuk, R T Sang

Mo004 **Retrieving the density matrix form experimental KRAKEN data**
Carl Leon Mikael Petersson, Andreas Evensen, Eva Lindroth

Mo006 **Continuum wave packet interference driven by a multi-pulse arrangement**
Ladislau Nagy, Attila Tóth, Krisztina Joós, Sándor Borbély

Mo007 **Relativistic R-matrix calculations for photoionization of W^{61+} ions**
Zhongwen Wu, Juqiang Wang, Yi Li, Yuhao An, Stephan Fritzsche

Mo008 **The model of nuclear multipole transitions excitation by Laguerre-Gaussian beam**
Oleg Bogdanov, Yanchzhao Wang

Mo009 **Bringing weak transitions to light**
Yu He

Mo010 **Photoelectron spectrum from molecular anion using nonlocal discrete-state-in-continuum model**
Martin Cizek, Jan Zlatnik, Mattias Bertolino

Mo012 **Measurements of fullerene electron affinities at DESIREE**
Paul Martini, Navarro-Navarrete José, Schmidt Henning, Zettergren Henning, Gatchell Michael

Mo013 **High-order harmonic generation induced by a two-color laser field from atomic ions in plasma**
Chih-Yuan Lin

Mo014 **Resolving Rydberg-electron recapture dynamics via laser-driven frustrated tunneling ionization**
Yang Li, Feng He, Sainan Peng, Yudong Chen, Guangyu Fan, Xinhua Xie, Zhensheng Tao

Mo015 **Relativistic Study of Photoionization Cross Sections in Mg-like Ca IX**
Narendra Kumar, Shivankar ., Man Mohan, Alok Kumar Singh Jha

Mo016 **Internal decay processes in electron-rich symmetric dimer anions: An experimental probing using trapped ions in an Electrostatic ion-beam trap (EIBT)**
Roby Chacko, Stav Knaffo, Deepak Sharma, Oded Heber, Daniel Zajfman

Mo018 **Collisional-Radiative modeling for spectrum of W^{31+}-$W39^{+}$ ions within the wavelength range of 500-900 Å**
Xiaobin Ding, Yuting Li, Chenzhong Dong

Mo021 **Contribution of multiply excited states to the EUV emission of Sn^{12+}**
Fangjun Zhang

Mo023 **Collision-enhanced EUV spectrum of laser-produced Al plasma collisions**
Xingbang Liu, Qi Min, Shiquan Cao, Maogen Su, Chenzhong Dong

Mo025 **R-matrix Studies of Time-Delay in Open-Shell Atoms: Application to Na 3s photoionization near the Cooper Minimum**
Steven T. Manson, Thomas W. Gorczyca

Mo029 ***In-situ* Waveform Sampling in a Reaction Microscope**
Shima Gholam-Mirzaei, Pooya Ghavami, Fatemeh Karimi, Nida Haram, Andrei Yu. Naumov, Paul B. Corkum, Andre Staudte

Mo031 **Coherent Control of Extreme Ultraviolet Emission with attosecond resolution**
Jiaao Cai, Bengtsson Samuel, Sizuo Luo, Dajun Ding, Mingxuan Li, Huiyong Wang, Jialong Li, Wentao Wang, J Mauritsson, Liyuan Wang

Mo032 **Harmonic generation with topological edge states and electron-electron interaction**
Siamak Pooyan, Dieter Bauer

Mo033 **Saddle point analysis on enhancement of the few-cycle-driving high-order harmonic generation**
Zhi-Hong Jiao, Tian-Xiang Ma

Photon - Molecule/Cluster

Mo035 **Multiorbital ionization of nitrogen molecules in attosecond XUV pulses**
Jianmin Yuan, Pan Song, Xiaowei Wang, Dongwen Zhang, Chaochao Qin, Zengxiu Zhao

Mo037 **Ionization of Atoms and Molecules in Two-color Circularly Polarized Laser Fields**
Bingbing Wang, Yuhong Li

Mo038 **Extraction of double photoionization amplitudes from full scattered wave functions**
Frank Yip, Alexander Sadamune, Robert Lucchese, C William McCurdy

Mo039 **Pulse compression of high repetition rate Yb laser pulses for ultrafast imaging in ALLS**
Heide Ibrahim, Mayank Kumar, Stephen Londo, Marie Ouille, Gaëtan Jargot, François Légaré

Mo040 **Molecular structure imaging based on strong-field photoionization**
XuanYang Lai, XiaoJun Liu, André Staudte, Dong Eon Kim, Tsendsuren Khurelbaatar, RenPing Sun, ShaoGang Yu

MONDAY

Mo041 Update on the Waterloo-ALLS reaction microscope endstation of the Advanced Laser Light Source (ALLS) facility
Joseph Sanderson, Heide Ibrahim, Yonghao Mi, Andre Stoudte

Mo043 Angular dependence of photoemission time delay in molecules in two-photon transitions studied using Multiple Scattering theory
Yugo Miura, Yoshiaki Tamura, Jiabao Ji, Kiyoshi Ueda, Hans Jakob Wörner, Keisuke Hatada

Mo044 Manipulating Molecular Dynamics with Polarization-Shaped Laser Pulses
Shengzhe Pan, Jian Wu

Mo045 Attosecond Time Delay in Electronic and Vibrational State-Resolved Ionization of NO Molecules
Huiyong Wang, Huiyong Wang, Guangru Bai, Mingxuan Li, Jialong Li, Jinlei Liu, Zengxiu Zhao, Pan Ma, Sizuo Luo, Dajun Ding

Mo046 Channel-Resolved Strong-Field Autoionization of Triatomic Molecules N_2O
Xiaoge Zhao, Xiaokai Li, Pan Ma, Chuncheng Wang, Sizuo Luo, Dajun Ding

Mo048 Ionic-State Resolved Photoelectron Spectra via the MCTDHF-tSURFF Approach
Hiromichi Hayashi, Takeshi Sato, Serguei Patchkovskii, Stefanos Carlström

Mo049 Structures of single Xe and Kr nanoparticles revealed by single-shot X-ray diffraction
Akinobu Niozu

Mo051 Advanced momentum-imaging spectroscopy based on a table-top XUV source for gas-phase photochemistry
Michele Devetta, Davide Faccialà, Anna Gabriella Ciriolo, Luca Poletto, Salvatore Stagira, Caterina Vozzi

Mo052 XUV spectroscopy techniques based on HHG for understanding ultrafast dynamics in molecules
Caterina Vozzi, Anna G Ciriolo, Davide Faccialà, Michele Devetta, Rebeca Martinez Vazquez, Eugenio Cinquanta, Fabio Frassetto, Luca Poletto, Roberto Osellame, Salvatore Stagira

Mo053 Benzonitrile and its fragmentation hierarchy: UV multiphoton ionization study
Muthuamirthambal Selvaraj, Binduja Panja, Rejila J, Sreeja R, Theertha M, Vishnumaya A, Umesh Kadhane

Mo055 Watching a molecular bond break
Tian Wang, Nida Haram, Zack Dube, Kyle A Hamer, Yonghao Mi, Fatemeh Karimi, Nicolas Douguet, David M Villeneuve, Paul B Corkum, Andre Staudte

Mo056 Investigation on metastable decay of Toluene at 266 nm multiphoton ionization
Binduja Panja, Muthuamirthambal Selvaraj, Vishnumaya Awadakkam, Rejila Janoharan, Theertha Matakkali Puthanpurayil, Sreeja Raghunandanan, Pavithra Sreeletha Devi, Umesh Kadhane

Mo057 An instrument for probing the dynamics in liquids by XUV and THz pump-probe photoelectron spectroscopy (DYLIXUT)
Simon Reinwardt, Holger Meyer, Sven Gieschen, Julius Schwarz, Manuel Harder, Joana Valerio, Zhong Yin, Michael Martins

Mo058 ESCA revisited: decoding selectivity with core-hole localisation and its impact on Auger-Meitner decay
Stacey Sorensen, Ville Lindblom, Adam Fouda, Stephen Southworth, Gilles Doumy, Phay Ho, Linda Young, Lan Cheng

Mo059 Correlated tunneling in high-order above threshold dissociative ionization of H_2
Jing Chen, Xiaolei Hao

Mo060 Structure reconstruction of small clusters and molecules in Coulomb Explosion Imaging
Maksim Kunitski, Jan Kruse, Till Jahnke, Reinhard Dörner

Mo061 Photoelectron holography of a heteronuclear molecule
Marko Haertelt, Wenzhuo Wu, Xuanyang Lai, Andrei Yu. Naumov, Xiaojun Liu, Paul B. Corkum, Andre Staudte

Mo063 Modelling of attosecond photoionization time-delays in atomic iodine and iodomethane with scalar relativistic effects
Martin Crhán, Jakub Benda, Zdeněk Mašín

Mo064 **Laser-Enabled Control of Interatomic-Coulomb-Decay Dynamics**
C. W. Hogle, L. Martin, W. K. Peters, X. M. Tong, T. Miteva, K. Ueda, L. S. Cederbaum, P Ranitovic

Mo065 **Photoelectron circular dichroism using a reflective phase retarder in the extreme ultraviolet**
Ryunosuke Oshima, Ryunosuke Hasegawa, Yuta Takahashi, Furkan Aksay, Shinichiro Minemoto, Taro Sekikawa

Mo066 **Theoretical study of CH_4^{2+} dissociation processes in intense laser fields**
Hiroka Hasegawa, Toru Morishita

Lepton - Molecule/Cluster

Mo109 **Electron collisions with microhydrated radiosensitisers**
Thi Thao Vy Nguyen, Stephan Denifl

Mo110 **Laser-based thermal desorption: A tool for studying thermally labile molecules**
Daniel Bou Debes, Kate Nixon, Sam Eden

Lepton - Surface

Mo111 **Low Energy Electron Emission from Graphite, Single- and Bilayer Graphene: Electronic Doorway States enabling Escape to Vacuum.**
Wolfgang S.M. Werner, Anna Niggas, Florian Simperl, Felix Blödorn, Melvin Cap, Johannes Kero, David Hofmann, Alessandra Bellissimo, Richard Wilhelm, Florian Libisch

Mo112 **Transmission through Graphene of Electrons in the 30 - 900 eV Range**
Alice Apponi, Domenica Convertino, Neeraj Mishra, Camilla Coletti, Mauro Iodice, Federico Pilo, Narcis Silviu Blaj, Giovanni De Bellis, Gianluca Cavoto, Alessandro Ruocco

Mo113 **Electron Transmission through Highly Hydrogenated Graphene**
Alessandro Ruocco, Alice Apponi, Orlando Castellano, Daniele Paoloni, Domenica Convertino, Neeraj Mishra, Camilla Coletti, Carlo Mariani

Heavy Particles, Cold Matter - Atom/Ion

Mo117 **Theoretical spectroscopy determination of impurity influx in tokamaks: the role of metastables**
Darío Mitnik, Claudia Montanari, Fengling Zhang, Runjia Bao, Ling Zhang

Mo118 **Recoil-ion beam production with nuclear-stimulated desorption following the β^- decay of ^{225}Ra**
Shiori Iida, Yuta Ito, Kazuaki Tsukada, Takeshi Furukawa

Mo119 **CSFs reduced Configuration Interaction for High-Precision Multielectron Atomic Structure Calculations**
Yi Qin, Jinzhe Zhang, Jinde Liu, Gang Jiang

Mo121 **Triple magic trapping conditions for $5s^2\ {}^1S_0 \rightarrow 5s5p\ {}^3P_{0,2}$ transitions of Sr atoms**
Jun Jiang, Qing-Yi Liu , Yong-Bo Tang, Chen-Zhong Dong

Mo123 **Plasma and Ion beam diagnostics of Hall effect Thruster for Space Application**
Rejila Janoharan, Aarathi Sathi Nair, Athira Suresh Nair, Vishnumaya Awadakkam, Theertha M P, Gauthami Rajasree, Sreeja Raghunandanan, Shreni Sonaniskar, Umesh Ramakant Kadhane

Mo124 **A Novel Compton Telescope for Polarimetry in the MeV Range**
Tobias Over-Winter, Anton Kononov, Thomas Krings, Wilko Middents, Uwe Spillmann, Günter Weber, Thomas Stöhlker

Mo125 **Collisional-radiative model for the EUV spectra of W^{27+}-W^{29+} ions**
Yanlan Xu, Xiaobin Ding, Ling Zhang, Chenzhong Dong

Mo126 **State-selective single- and double-electron capture in slow S^{5+}-He collisions**
Xiaolong Zhu, Yixin Fan, Dadi Xing, Shucheng Cui, Xiaoxia Wang, Junxia Ran, Kaizhao Lin, Xubin Zhu, Dongmei Zhao, Dalong Guo

Mo130 **Ionisation and capture cross-sections for antiprotons with slow-extracted beams from the MUSASHI trap**
Naofumi Kuroda, Daniel James Murtagh, Hiroyuki Higaki, Minori Tajima, Yasuyuki Matsuda

Mo131 Double electron capture into autoionizing states in N^{7+} and He collisions
Junwen Gao, Jiajie Niu, Weiwei Zhang, Yueying Qi

Heavy Particles, Cold Matter - Surface

Mo145 Absolute doubly differential angular sputtering yields for ions impacting a loose powder
Daniel Wolf Savin, Caixia Bu, Sebastien Verkercke, Deborah Berhanu, Benjamin C. Bostick, Steven N. Chillrud, Benjamin A. Clouter-Gergen, Denton S. Ebel, Isabel Hahn, George E. Harlow

Mo146 Vicinage effect on convoy electrons from carbon foils: Comparing H_2^+ and C_2^+ disappearance thresholds
Yuichiro Yano, Uta Ozeki, Yoko Shiina, Makoto Matsuda, Makoto Imai, Masao Sataka, Tsutomu Takahashi, Satoshi Ishii, Kimikazu Sasa, Shigeo Tomita, Norito Ishikawa, Yuta Ito

Mo147 Research on the Formation of Thin Films on GaAs Surface by N_2^+ Ion Implantation
Yipan Guo, Pengfei Li, Xiyuan Wang

Mo148 Using highly charged ion for probing the surface contamination rate of the single layer graphene under high vacuum conditions
Reinhold schuch, zhanhui du, enshun liu, pengfei li, chengliang wan, ying cui, ximeng chen, ke yao, caojie shao, hongqiang zhang

Mo149 Analysis of TiO_2 and Ti nanolayers modified with Xe^{q+} HCI using SR-XRR and SR-GIXRF methods
Marek Pajek, Regina Stachura, Dariusz Banaś, Paweł Jagodziński, Aldona Kubala-Kukuś, Ilona Stabrawa, Karol Szary, Giuliana Aquilanti, Iva Božičević Mihalić, Manoj Tiwari

Mo150 Nitrogen atom diffusion on the surface of amorphous solid water at low temperatures
Tamaki Endo, Masashi Tsuge, Naoki Watanabe

Poster Session IV — Room 104+105 — 16:00-18:30

Photon - Surface

Mo067 High-harmonic generation due to anomalous Hall currents in bilayer WTe_2
Arqum Hashmi, Kazuhiro Yabana, Tomohito Otobe, Kenichi L. Ishikawa

Mo070 Photon Scattering and Symmetry Breaking in 2D semiconductors
Florian Libisch, Valerie Smejkal, Lukas Linhart, Joachim Burgdörfer

Photon - Other

Mo074 Broadband half-cycle terahertz generation in $ZnGeP_2$ crystal at 1030 nm
Shaobo FANG, Yuzhe LIU, Aokun ZHANG, Xinbo WANG, Chun ZHOU

Mo075 High-Harmonic Generation in a Two-Leg Ladder Su-Schrieffer-Heeger Model
Milad Jangjan, Dieter Bauer

Mo076 Determination of an electron pulse duration after compression by using a THz streaking methodology
Haruki Taira, Ryota Nishimori, Kaito En-ya, Godai Noyama, Gaël Privault, Yusuke Arashida, Kou Takubo, Shin-ya Koshihara, Shoji Yoshida, Masaki Hada

Mo077 Photonic meta-devices for rotationally pedal-tunable vortex beam emissions
Meng-Hsin Chen, Bo-Syun Peng, Cyun-Yu Lin, Vin-Cent Su, Zhao-Xiang Luo

Mo078 Photon eraser experiments with metasurfaces capable of vortex beam emissions
Vin-Cent Su, Yu-Xuan Lin, Guo-Kai Wang, Meng-Hsin Chen, Zi-Ming Peng

Mo079 Ultrafast structural reorganization monitored by electron diffraction in $BaTiO_3$ at room temperature with UV excitation
Nagisa Yamamoto, Weikun Zhou, Gael Privault, Riyo Nagao, Arnaud Arbouet, Shin-ya Koshihara, Tsukasa Katayama, Masaki Hada

Lepton - Atom/Ion

Mo080 Perfect electron vortex beams
Bikash K Das, Camilo Granados, Marcelo F Ciappina

Mo081 Elastic and inelastic electron backscattering spectroscopy of He
Satoru Kanaya, Yuuki Onitsuka, Salim Houamer, Ochbadrakh Chuluunbaatar, Yuri Popov, Dmitry Fursa, Igor Bray, Masahiko Takahashi

Mo082 Electron-impact rotational excitation of asymmetric-top molecular ions with a strong dipole moment.
Joshua Forer, Viatcheslav Kokoouline

Mo083 Single Ionization of Sn^+ by Electron Impact: Experiment and Theory
Karoly Tökési, M.F. Gharaibeh, D. Szabó

Mo084 Testing strong-field QED to second-order in highly correlated berylliumlike Pb^{78+} by electron-ion collision spectroscopy
Stefan Schippers

Mo085 Correlation-Driven Anomalous Photoelectron Angular Distribution in Multiphoton Single Ionization of Argon
Zhao-Han Zhang, Yang Li, Ruo-Lin Gong

Mo086 Theoretical calculations of quantum interference on photorecombination crosssection profiles for He-like ions
Chengpeng Yang, Yulong Ma, Chenzhong Dong, Luyou Xie

Mo087 Theoretical Study on the Transition Wavelengths and Probabilities, Landé g_J Factors, and Sensitivity to Fundamental Constants of Ge-like Highly Charged Ions
Cunqiang Wu, Xiaobin Ding, Chendong Dong

Mo088 Spatially resolved spectroscopy and plume splitting of soft x-ray emitting laser-produced iron plasmas in a high pressure helium environment
Emma Sokell, Kevin Mongey, Ruairi Brady, Eoghan Gallagher, Ben Delaney, Fergal O' Reilly

Mo089 Linear polarization of x-rays emitted following L-shell dielectronic recombination of Na-like Fe^{15+} ions
Wenliang He, Luyou Xie, Shengbo Niu, Jinglin Rui, Yulong Ma, Chenzhong Dong

Mo093 Radiative and inelastic scattering processes in dense quantum plasmas
Madina M. Seisembayeva, Askhat T. Nuraly, Karlygash N. Dzhumagulova, Didar M. Shokov, Kuanysh O. Tlekova , Erik O. Shalenov

Mo094 Collision processes in warm dense matter
Karlygash N. Dzhumagulova, Erik O. Shalenov, Yerkhan A. Tashkenbayev, Yeldos S. Seitkozhanov, Madina M. Seisembayeva, Murat N. Jumagulov

Mo095 Theoretical explanation of laser produced gold plasma spectrum in the 3.0-11.5 nm wavelength range
Chenzhong Dong, Guoqing Zhang, Chongrui Zhang, Luyou Xie

Lepton - Molecule/Cluster

Mo096 Dissociative positronium attachment in halogen gases
Ilya Fabrikant, Robyn Wilde, Gleb Gribakin

Mo097 Ionization Cross Sections of Hydrogen Molecule by Electron and Positron Impact
Karoly Tökési, R.D. DuBois, R.G. Zeng, L.H. Yang, A. Sulyok, M Menyhard, z.J. Ding

Mo098 Low-Energy Free-Electron Capture by Aromatic Molecules: Influence of Delocalized σ^* Orbitals
Gorachand Das, Vaibhav S Prabhudesai, Y Sajeev

Mo099 Absolute Electron Impact Ionization Cross Sections for Atmospheric Relevant Molecules
Alexander Dorn, Mevlut Dogan, Wania Wolff, Deepthy Maria Mootheril, Thomas Pfeifer

Mo100 Resonance Studies of Fullerenes and its Derivatives through Elastic Electron Scattering (EES)
Kartik Madan, Jobin Jose, Hari R Varma

Mo102 Investigation of chlorosalicylic acid resonance spectra via low-energy electron collisions
Alessandra Souza Barbosa, Valéria Liberti, Alessandra Souza Barbosa

Mo104 The role of double ionization for the production of O^+ coming from CO_2 ionization by electron impact
Lucas Sigaud, Ana Beatriz Monteiro-Carvalho, Eduardo Montenegro

Mo105 Calculate electronic excited states using neural networks with effective core potential
Jinde Liu, Gang Jiang

Mo106 Contrasting dynamics of isoelectronic anions formed by electron attachment
Juraj Fedor, Pamir Nag, Milos Rankovic, Miroslav Polasek, Roman Curik, Daniel S Slaughter

Lepton - Surface

Mo114 Neural Network for high-throughput materials characterization with X-ray photoelectron spectroscopy
Florian Simperl, Wolfgang Werner

Mo115 The guiding effect on a macroscopic flat borosilicate plate: Influence of beam energy, current, and electron loss detection
Esteban Irribarra, Carlos Hernandez, Pablo Jácome

Mo116 Structural changes in 2D materials due to elastic and inelastic electron scattering
Jani Kotakoski, Carsten Speckmann, Tui Thuy An Bui, Toma Susi

Heavy Particles, Cold Matter - Molecule/Cluster

Mo132 Ion mobility of $H_3^+ (H_2)_n$ ($n \leq 3$) in H_2 at 77 K
Hajime Tanuma, Ryo Ui, Saki Imaizumi, Rua Kimura, Shusei Nagano

Mo134 Internal excitation of molecular ion beam produced from arc discharge plasmas
Hiroya Tamaru, Ryuto Takemasa, Rin Ota, Katsuki Kondo, Marina Hamaguchi, Yoko Shiina, Yuji Nakano

Mo135 Damaging Intermolecular Relaxation Processes Initiated by Heavy-Ion Irradiation of Hydrated Biomolecules
Yue Gao, Shenyue Xu, Anna D. Skitnevskaya, Enliang Wang, Hang Yuan, Xueguang Ren, Shaofeng Zhang, Lorenz S. Cederbaum, Alexander I. Kuleff, Xinwen Ma

Mo136 Dissociation Processes of Methyl Formate Molecules in Multiply Charged Ion Collisions
Jun Matsumoto, Rio Ishide, Reika Kanya

Mo137 Dication of PANH as a possible source of methylene amidogen cation in Titan ionosphere
Vishnumaya Awadakkam, Safvan Cholakka .P, Vinitha Meloottayil .V , Pragya Bhatt, Sarita Vig, Umesh Kadhane

Mo138 Evidence of wave-particle duality in slow- and intermediate-velocity ion-atom/molecule collisions
Md Abul Kalam Azad Siddiki, Felix Herrmann, Weiyu Zhang, Michael Schulz, Alexander Dorn, Oldrich Novotny, Holger Kreckel, Thomas Pfeifer, Claus Dieter Schroeter, Robert Moshammer

Mo139 Influence of base type on nucleotide damage induced by heavy ion irradiation
Ayana Tachibana, Naruki Uno, Tetsuro Ohta, Takuya Majima, Manabu Saito, Hidetsugu Tsuchida

Mo140 Collective excitation in atomic systems-large molecules: applications in radio-biology, astrophysics and nano-sciences
Lokesh Tribedi

Mo141 Molecular two-center interference in H^+ emission from H_2 molecule by O^+ ion impact and its dependence on the target coherence
Zoltán Juhász

Mo142 Electron Capture and Ionization Dynamics of H_3^+ ions with CO and He in low-velocity regime
Harpreet Singh, Deepankar Misra, Arnab Khan

Mo143 Single and double electron detachment absolute cross sections of H^- and D^- in collisions with diatomic and triatomic gases
Xuemei Zhang, Siming Wang, Mingshuai Cui, Yuquan Du, Xin Su, Yifei Yang

Mo144 Dissociation dynamics of NO^{3+} induced by low-energy O^{6+} ions
Dongmei Zhao, Zhixin Li, Kaizhao Lin, Xiaolong Zhu, Hang Yuan, Dalong Guo, Yong Gao, Shaofeng Zhang, Xinwen Ma

Conference Dinner **Sapporo Beer Garden** **19:00-21:00**

Detailed Program

Tuesday, August 5

Plenary Lecture V — Conference Hall — 09:00-10:00

VUV Photodynamics in isolated chiral systems
Laurent Nahon (Synchrotron SOLEIL, France)
Chair: Emily Lamour (Institut des NanoSciences de Paris, Sorbonne University, CNRS, France)

Coffee Break — 10:00-10:30

Parallel Session IX A: Liquid — Conference Hall — 10:30-12:30

Chair: Stephan Thuermer (Kyoto University, Japan)

PR **Expanding research directions for gas-phase and liquid-phase research at MAX IV Laboratory**
Noelle Walsh (MAX IV Laboratory, Lund University, Sweden)

PR **X-ray initiated photodynamics in solvated systems**
Petr Slavíček (Unversity of Chemistry and Technology, Czech Republic)

SR **Electron collisions with liquid micro-jets - detecting solvated electrons via florescence spectroscopy**
Pamir Nag (J. Heyrovský Institute of Physical Chemistry of the CAS, Czech Republic)

SR **Low-Energy Electron Emission in an X-ray Induced Radiation Damage Cycle of Inorganic Ions in Aqueous Solution**
Dana Bloß (University of Kassel, Germany)

Parallel Session IX B: Spectroscopy — Mid-sized Hall — 10:30-12:30

Chair: Karoly Tökési (HUN-REN Institute for Nuclear Research, Hungary)

PR **Towards the formation of ultracold polar diatomic molecules and studies of low-energy ion-neutral collisions**
Sourav Dutta (Tata Institute of Fundamental Research, India)

PR **Investigating L-MM Auger-Meitner electron emission in ion-atom, ion-molecule collision**
Aditya Kelkar (Indian Institute of Technology Kanpur, India)

PR **Line identification and cross section measurements in the EUV and X-ray range on the NIST EBIT and development of a laser-induced desorption system inside the Heidelberg EBIT**
Yang Yang (CQTA, DESY, Germany)

PR **Moderately charged tungsten spectroscopy studies using SH-HtscEBIT**
Jun Xiao (Shanghai EBIT Laboratory, Fudan University, China)

Business Meeting — Conference Hall — 12:30-13:00

Lunch — 13:00-14:30

Parallel Session X A: Imaging — Conference Hall — 14:30-16:30

Chair: Marc Simon (CNRS, France)

PR **Molecular movies of van der Waals clusters and chiral molecules: New approaches to high-resolution spectroscopy and chiral discrimination**
Kenta Mizuse (Kitasato Univ./Science Tokyo, Japan)

PR **Inelastic electron scattering and overlapping resonances**
Vaibhav S. Prabhudesai (Tata Institute of Fundamental Research, India)

PR **Electronic and Nuclear Dynamics of Electronic Resonances in Molecules**
Daniel Slaughter (Lawrence Berkeley National Laboratory, USA)

SR **Coulomb Explosion Imaging of Complex Molecules Using Highly Charged Ions**
Hang Yuan (Institute of Modern Physics, Chinese Academy of Sciences, China)

Parallel Session X B: Nuclear — Mid-sized Hall — 14:30-16:30

Chair: Andrey Surzhykov (Physikalisch-Technische Bundesanstalt (PTB), Germany)

PR **Trapping and laser spectroscopy of triply charged thorium-229 isomer for a nuclear clock**
Atsushi Yamaguchi (RIKEN, Japan)

PR **Intersection of nuclear and atomic physics: precision experiments with stored highly charged radioactive ions**
Yury Litvinov (GSI Helmholtz Center for Heavy Ion Research GmbH, Germany)

PR **Highly nonlinear light-nucleus interaction**
Xu Wang (China Academy of Engineering Physics, China)

PR **Multi-photon emission of x-rays from cooperative resonant nuclei**
Xiangjin Kong (Fudan University, China)

July 30 - August 4

In Memoriam — Conference Hall

Me001 **In Memoriam: Reiner M. Dreizler**
Tom Kirchner, Marko Horbatsch

Me002 **In Memoriam: Allan D. Stauffer**
Tom Kirchner, Marko Horbatsch

Me003 **In memoriam: Cliff Surko: positron plasmas, trapping, beams and annihilation in molecules**
Gleb Gribakin, James Danielson, Adam Deller, Allen Mills, Eve Stenson

Me004 **In Memoriam: Hartmut Hotop**
LOC, Klaas Bergmann, Martin Ruf, Ilya Fabrikant

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*Values are indicated for narrow bandwidth video amplifier (DC-1MHz).

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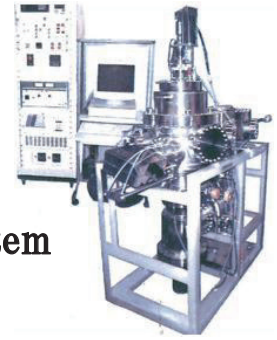

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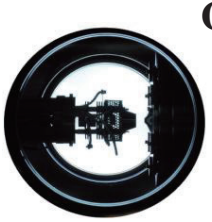
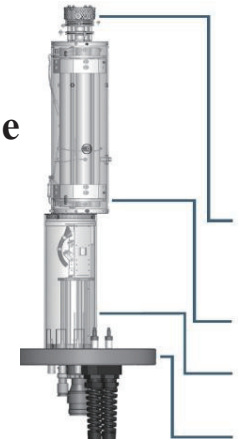
MAX-QMS System Assembly



Quadrupole Mass Spectrometer

Quadrupole Probe Assembly



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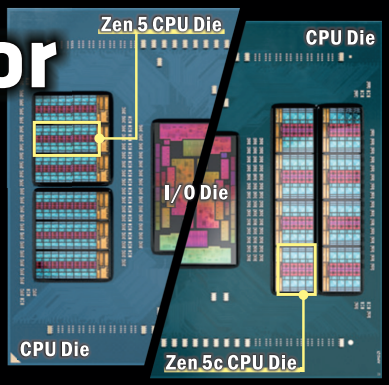

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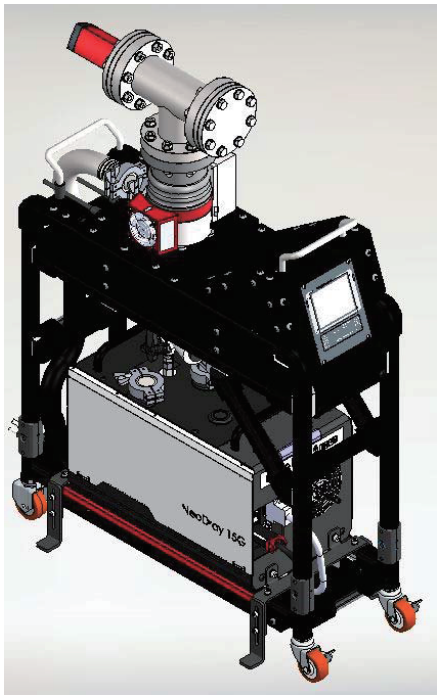

参考外観図

主な仕様		
型式	HUDVS－100	HUDVS－63
ターボ分子ポンプ 排気速度	260L/sec(N_2)　220L/sec(H_2)	67L/sec(N_2)　48L/sec(H_2)
ターボ分子ポンプ 到達圧力	10^{-8}Pa台（排気装置　10^{-6}Pa台）	
吸気口フランジ	ICF152	ICF114
補助(ドライ)ポンプ排気量	250L/min	250L/min
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質量	約42kg	
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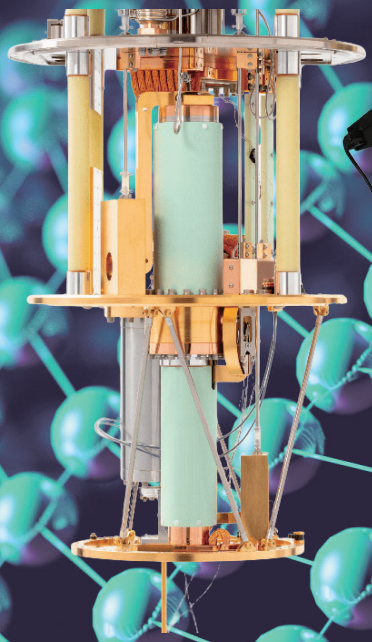
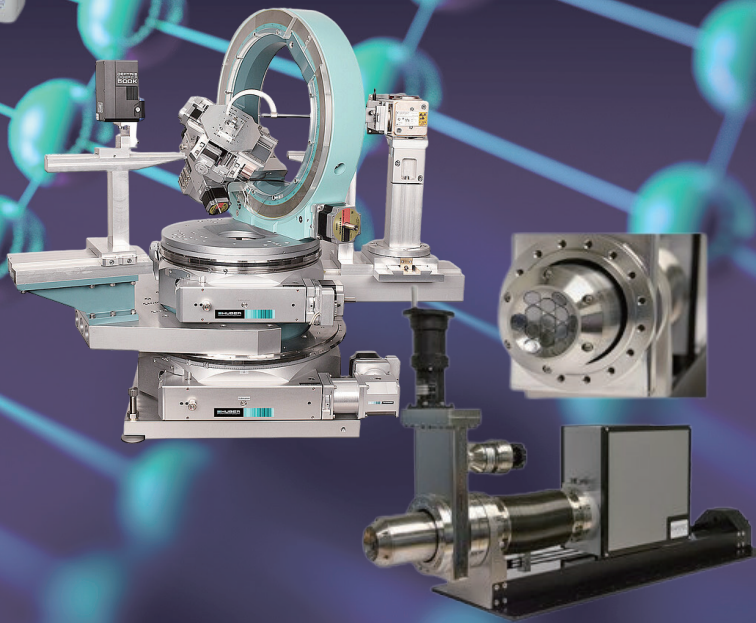


Radiation Measurement Instruments

Applicated X-Ray Measurement



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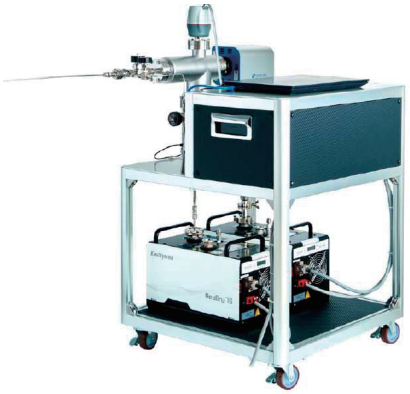

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・Simultaneous measurement of multiple gases
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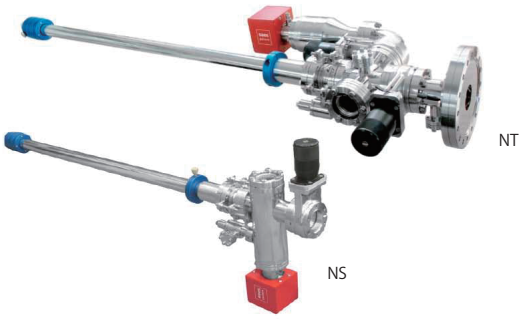

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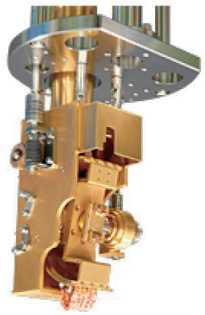

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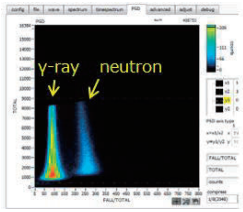

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VME size DPP
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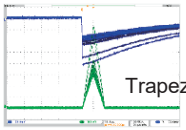

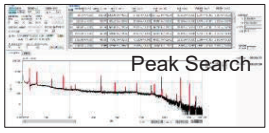

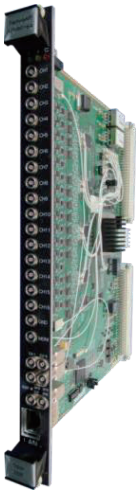

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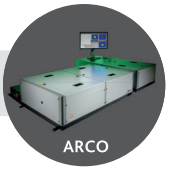

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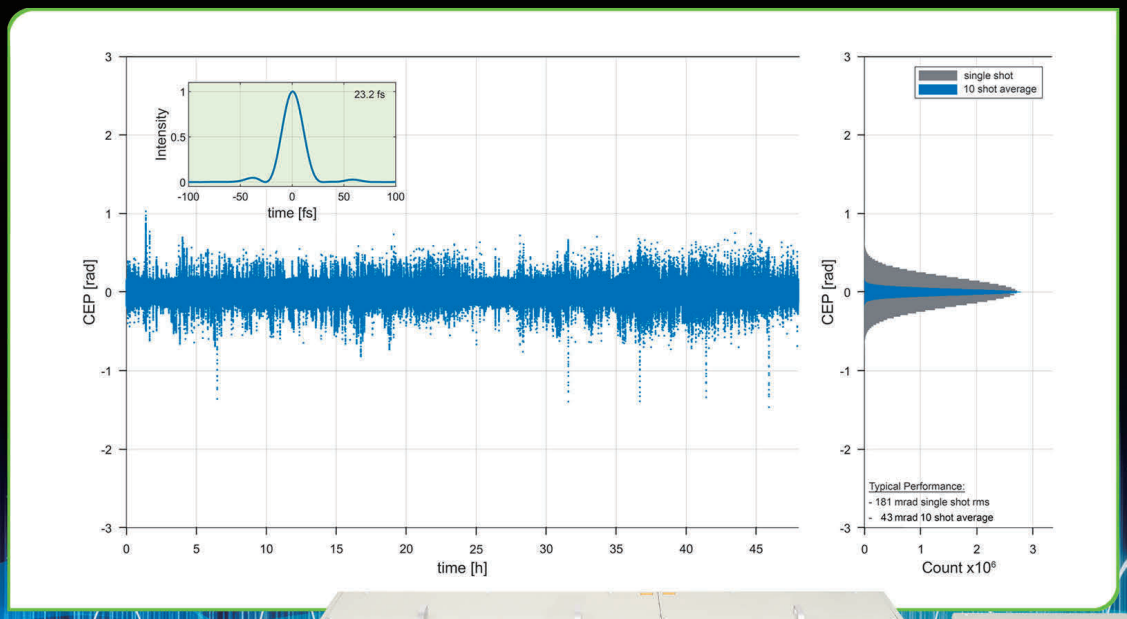

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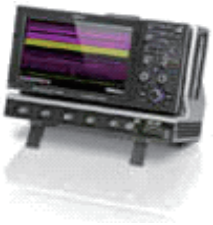

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営　業　所　郡山　いわき　盛岡　山形　宇都宮　会津

Circulation Cooling Systems for Magnet & Optical Components

Cryorefrigerators

・Suzuki Shokan (GM 20 K, 70 K)
・Sumitomo Heavy Industries (GM 4 K, 20 K, 70 K, Pulse Tube 4 K)
・RIX Industries (Stirling Pulse 70 K)
・Stirling Cryogenics (Stirling 20 K, 70 K)

Pumps and compressors

・Suzuki Shokan (He compressor)
・Toa Diving Apparatus (He compressor)
・Barber Nichols (low-temperature pumps and blowers for LN2 and GHe)

System design based on your needs

LN2 circulation cooling systems

Left:
Equipped of a LT pump and a 77 K bath for circulation of LN2 with very low vibration and noise.

Bottom:
Equipped of a LT pump and a variable number of GM cryorefrigerators to adapt the cooling power to your needs. Long-seller.

GHe circulation cooling systems

Left:
20 K GHe (1 MPaG) circulation system based on in-house He compressor with GM cryorefrigerators for temperature control.

Right:
20 K GHe (0.2 MPaG) circulation system with GM cryorefrigerators for temperature control.

LHe reliquefaction & Conduction cooling systems

Left:
LHe reliquefaction system for needs up to 10 L a day.

Right:
GM-cryorefrigerator conduction-cooled NbTi magnet in its vacuum cryostat.

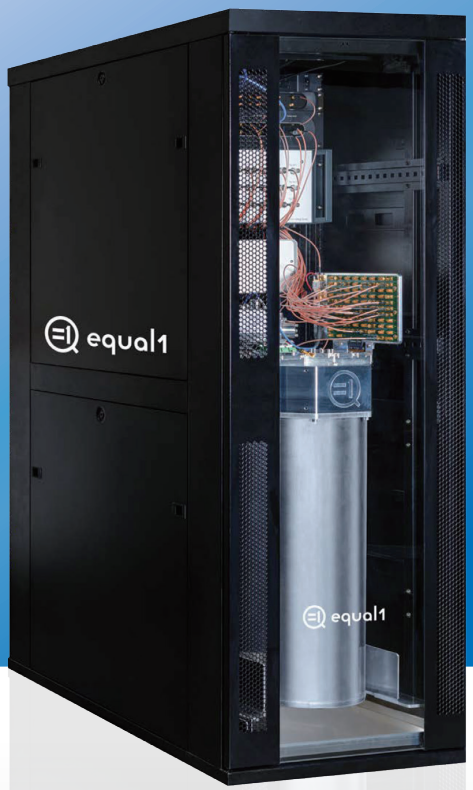
鈴木商館
Suzuki Shokan

CRYOGENIC DIVISION
73 Hiratsuka Ageo-shi Saitama 362-0011. JAPAN Tel : +81-48-796-8301 Fax : +81-48-796-8302
E-mail : teion@suzukishokan.co.jp

equal1

Bell-1

QUANTUM SERVER



世界初
ラックマウント型
シリコン量子コンピュータ

既存のデータセンターに導入可能

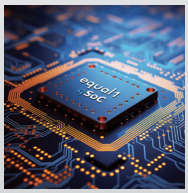
- サイズ：600mm x 1000mm x 1600mm（w x l x h）
- 110V/220V 単相電源で動作し、標準的な電源コンセントに接続でき、動作時の消費電力はわずか1600W

最先端の冷却システム

- 筐体内に統合型クローズドサイクルクライオクーラー（密閉型冷却器）を搭載
- 外部希釈冷凍機を必要とせず、0.3ケルビンで動作
- メンテナンス：2年ごとに交換、Equal1が請け負います

制御、読み出し、エラー補正を1つのチップに統合したQSoC

- QPUとARM CPU、AIアクセラレータおよびNPUを組み合わせています



6量子ビット、5億円～、受注から約6カ月で納品

- コンパクトなサイズから、研究開発を始めたい方に
- 今後、さらに拡張していく予定です

［主な仕様］

6-Qubit QPU	Typical
T1 Time	380 ms
T2 Rabi Time	26 μs
T2* Time	13 μs
Single Qubit Gate Fidelity	99.40%
Single Qubit Gate Duration	84 ns
CZ Fidelity	98.40%
CZ Duration	72 ns
Readout Fidelity	>99.9%
Readout Time	10 μs

お問い合わせ

販売：ビジュアルテクノロジー株式会社

◀お問い合わせフォーム

弊社サイトのお問い合わせフォームへご入力いただくか、下記までご連絡ください。

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Program at a Glance

	Tuesday July 29			Wednesday July 30		Thursday July 31			Friday August 1		Saturday August 2	Sunday August 3	Monday August 4		Tuesday August 5		
VENUE	Hokkaido University	SAPPORO CONVENTION CENTER											SAPPORO CONVENTION CENTER				VENUE
8:30				(8:45 am) ICPEAC Opening					Plenary Lecture III Hossein Sadeghpour Chair : Kirchner (Conference Hall)								8:30
9:00				Plenary Lecture I Linda Young Chair : Ding (Conference Hall)		Plenary Lecture II Yasuyuki Nagashima Chair : Orel (Conference Hall)							Plenary Lecture IV Ronnie Hoekstra Chair : Schippers (Conference Hall)		Plenary Lecture V Laurent Nahon Chair : Lamour (Conference Hall)		9:00
9:30									IUPAP Prize talk Kirill Koshelev Chair : Azuma								9:30
10:00				Coffee break		Coffee break			Coffee break				Coffee break		Coffee break		10:00
10:30				Atto Chair : Ibrahim Driver (PR) Rego (PR) Jiang (SR) Ivanov (SR) Schnorr(SR) Plekan (SR) (Conference Hall)	Exotic Chair : Tachikawa Yoshioka (PR) Glöggler (PR) Yamashita (PR) Belosevic (SR) Tong (SR) (Mid-sized Hall)	FEL Chair : Jahnke Son (PR) Ingle (PR) Al Haddad (PR) Togawa(SR) Ganguly (SR) (Conference Hall)	Astro Chair : Okada Dowd (SR) Orszagh (PR) Noble (PR) da Costa (PR) Tsuge (SR) (Mid-sized Hall)		Atto Quantum Chair : Dahlström Vrakking (PR) Busto (PR) Ciappina (PR) Sato (PR) (Conference Hall)	El-molecule Chair : Chen Ingólfsson (PR) Cornetta (PR) Miranda (SR) Rodrigues (SR) Neha (SR) Dobashi (SR) (Mid-sized Hall)		Ultrafast Chair : Vozzi Itatani (PR) Zhang (PR) Zhou (SR) Amitay(SR) Cavaletto (SR) Jacob (SR) (Conference Hall)	El-collision Chair : Houamer Cizek (PR) Gorfinkiel (PR) Jahr (SR) Mootheril Thomas(SR) Rajendran (SR) Segui (SR) (Mid-sized Hall)	Liquid Chair : Thuermer Walsh (PR) Slaviček (PR) Nag (SR) Bloß (SR) (Conference Hall)	Spectroscopy Chair : Tökési Dutta (PR) Kelkar (PR) Yang (PR) Xiao (PR) (Mid-sized Hall)	10:30
11:00	Tutorial I Sylwia Ptasinska Chair : Takahashi																11:00
11:30																	11:30
12:00	Lunch																12:00
12:30				Lunch		Lunch		General Committee Meeting (201+202)	Lunch				Lunch		Business Meeting (Conference Hall)		12:30
13:00															Lunch		13:00
13:30	Tutorial II Kiyoshi Ueda Chair : Ishikawa																13:30
14:00				SR+EUV Chair : Hishikawa Suzuki (PR) Kadhane (PR) Marchenko (PR) Pille (SR) Rajput (SR) (Conference Hall)	Cold Chair : Hatakeyama Saito (PR) Ferlaino (PR) Zhao (PR) Orbán (SR) (Mid-sized Hall)	Storage Rings Chair : Zhang Kreckel (PR) Gatchell (SR) Bogot (PR) Herrmann (SR) Stockett (PR) (Conference Hall)	Fundamental theory Chair : Bray Stmat (PR) Gribakin (PR) Fritzsche (PR) Matyus(PR) (Mid-sized Hall)		Surface Chair : Cassimi Wilhelm (PR) Vojtech (SR) Bellissimo (PR) Urbain (SR) (Conference Hall)	Bio Chair : Tribedi Berholts (PR) Green (PR) Łabuda (PR) Kumaki (SR) (Mid-sized Hall)		Complex Chair : Safvan Silva (PR) Maclot (PR) Montanari (PR) Endo (PR) (Conference Hall)	Theory etc Chair : Morishita Spicer (PR) Della Picca (PR) Ye (PR) Falkowski (SR) (Mid-sized Hall)			14:00
14:30	Coffee break														Imaging Chair : Simon Mizuse (PR) Prabhudesai (PR) Slaughter (PR) Yuan (SR) (Conference Hall)	Nuclear Chair : Surzhykov Yamaguchi (PR) Litvinov (PR) Wang (PR) Kong (PR) (Mid-sized Hall)	14:30
15:00	Tutorial III Friedrich Aumayr Chair : Azuma										Excursion / Free Discussion						15:00
15:30																	15:30
16:00				Poster Session I (107+108, 104+105)		Poster Session II (107+108, 104+105)			Poster Session III (107+108, 104+105)				Poster Session IV (107+108, 104+105)				16:00
16:30		Registration: 16:30-18:00 Welcome Reception: 17:00-19:30 (Main Hall C)													End of Conference		16:30
17:00																	17:00
17:30																	17:30
18:00			Executive Committee meeting and dinner (Conference Hall 2F waiting room)														18:00
18:30																	18:30
19:00				Public lecture 1 Takaaki Kajita Chair : Azuma (Conference Hall)		Public lecture 2 Mokottunas Kitahara Chair : Watanabe (Conference Hall)							Conference Dinner 19:00-21:00 (Sapporo Beer Garden)				19:00
19:30																	19:30
20:00																	20:00
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21:00																	21:00
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