Day 1 (Friday 25 July 2025)

12:00 Registration

13:40 Opening

Session 1 Chair: Ladislau Nagy (Babeş-Bolyai University, Romania)

13:50 ***Direct evidence of breakdown of spin statistics in ion-atom charge-exchange collisions*** (I-01)

Xiaolong Zhu (Chinese Academy of Sciences, China)

14:20 ***Antiproton collisions from a fully-correlated time-dependent approach*** (I-03)

Nicolas Sisourat (Sorbonne Université, France)

14:50 ***Excitation of ground-state helium by proton impact*** (O-01)

Corey T. Plowman (Curtin University, Australia)

15:10 Coffee Break

Session 2 Chair: Xinwen Ma (Chinese Academy of Sciences, China)

15:30 ***Ion–atom collisions: a benchmark for reliable ion–ion studies*** (I-04)

Christophe Prigent (CNRS, Sorbonne University, France)

16:00 ***CSR-ReMi—an in-ring cryogenic microscope for electron-ion-projectile coincidence spectroscopy*** (I-05)

Md Abul K. A. Siddiki (Max-Planck Institute for Nuclear Physics, Germany)

16:30 ***Impact-parameter and kinematic-information differential ionisation of argon by positron and electron impact*** (O-02)

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

16:50 Short Break

17:00 Business Meeting

17:30 Welcome Cocktail & Poster Session 1

20:00 End of Day

Dav 2 (Saturdav 26 Julv 2025)

09:15 Announcements

Session 3 Chair: Claudia C. Montanari (Univ. de Buenos Aires, Argentina)

09:20 ***Multiply-differential study of vibrational dissociative capture in p + D_2 collisions*** (I-06)

Shruti Majumdar (Missouri Univ. of Science & Technology, USA)

09:50 ***O_2^+ production coming from CO_2 single-event electron impact*** (I-07)

Ana B. Monteiro-Carvalho (Universidade Federal Fluminense, Brazil)

10:20 ***Molecular two-centre interference in O^+ + CO collisions and its dependence on target coherence*** (O-03)

Zoltán Juhász (HUN-REN Institute for Nuclear Research, Hungary)

10:40 Coffee Break

Session 4 Chair: Alisher Kadyrov (Curtin University, Australia)

11:00 ***Break-up mechanism change in ionisation occurring in non-relativistic atomic collisions*** (I-08)

Alexander Voitkiv (Heinrich-Heine University, Germany)

11:30 ***Impact of dimer environments on non-adiabatic dynamics in transient molecules formed via ion-atom collisions*** (I-09)

Xiaoqing Hu
(Institute of Applied Physics & Computational Mathematics, China)

12:00 ***Low-energy collisions of H^- with B^+ or H^+*** (O-04)

Ann E. Orel (University of California, Davis, USA)

12:20 Group Photo

12:40 Lunch & Poster Session 2

Session 5 Chair: Alexander Voitkiv (Heinrich-Heine University, Germany)

14:20 ***Imaging molecular structures and revealing fragmentation dynamics using highly-charged ions*** (I-10)

Shenyue Xu (Chinese Academy of Sciences, China)

14:50 ***Interatomic Coulombic decay in ion-impact collisions – a theoretical perspective*** (I-11)

Tom Kirchner (York University, Canada)

15:20 ***Intra-molecular scattering within di-iodo-acetylene*** (O-05)

Sankar De (Saha Institute of Nuclear Physics, India)

15:40 ***Delayed fragmentation of polyatomic molecules induced by MeV-ion collisions*** (O-06)

Tomohiko Nakao (Kyoto University, Japan)

16:00 Coffee Break

Session 6 Chair: Ann E. Orel (University of California, Davis, USA)

16:20 ***Charge-exchange cross-sections for highly-charged ions colliding with atoms and molecules*** (I-12)

Baoren Wei (Fudan University, China)

16:50 ***Charge exchange & ionisation in impurity-ion collisions with atomic hydrogen*** (I-13)

Nicholas Antonio (Curtin University, Australia)

17:20 ***Double-electron capture into auto-ionising states in N^{7+} + He*** (O-07)

Junwen Gao (Hangzhou Normal University, China)

17:40 Transportation to Conference Dinner

19:00 Conference Dinner – Kyoryori Ujigawa (near Byōdō-in)

Day 3 (Sunday 27 July 2025)

09:15 Announcements

Session 7 Chair: Amine Cassimi (CIMAP CEA/CNRS, France)

09:20 ***Single-hit microbeam technology for single-cell "rad" biology*** (I-14)

Teruaki Konishi (Nat. Inst. for Quantum Science & Technology, Japan)

09:50 ***Track-structure mode and DNA-damage estimation in PHITS v3.35*** (I-15)

Yusuke Matsuya (Hokkaido University, Japan)

10:20 ***Reactivity in amino-acid clusters induced by ion collisions in the gas phase*** (O-08)

Sergio Díaz-Tendero (Universidad Autónoma de Madrid, Spain)

10:40 Coffee Break

Session 8 Chair: Alain Dubois (Sorbonne University, France)

11:00 ***Micro-PIXE for iron mapping in ferroptosis*** (I-16)

Henrique Fonteles (Universidade Federal do Rio Grande do Sul, Brazil)

11:30 ***A mystery of ion tracks in silicon – why monatomic ions (hundreds MeV) do not form tracks but C_{60} ions (60 keV) do*** (I-17)

Hiroshi Amekura (National Institute for Materials Science, Japan)

12:00 ***Stopping of charged particles interacting with a phosphorene monolayer – an ab initio approach*** (O-09)

Silvina Segui (Instituto de Física Enrique Gaviola, CONICET-UNC, Argentina)

12:20 Closing Remarks

Poster Sessions 1

P-01 ***Relevance of electronic excited states in the ionization and fragmentation dynamics of ferrocene induced in collisions with highly charged ions***

F. Aguilar-Galindo, S. Srivastav, A. Domaracka, M. Jbayli, S. Díaz-Tendero, P. Rousseau, S. Maclot

P-02 ***Theoretical Investigation of NO^+ Ion Mobility in Helium Based on the Monchick–Mason Approximation***

L. Aissaoui and I. Ghodbane

P-03 ***Benchmark target excitation and ionisation cross sections for ^-p + He($1\,^1S$, $2\,^3S$) collisions***

N. W. Antonio and A. S. Kadyrov

P-04 ***Convergent close-coupling approach to ion collisions with multi-electron targets: Application to ^-p + C collisions***

N. W. Antonio and A. S. Kadyrov

P-05 ***K-shell lines of neutral Iron atoms in the central region of the Milky Way resolved by the X-ray astronomy satellite XRISM***

Y. Aoki, K. K. Nobukawa, M. Nobukawa, H. Uchiyama, S. Yamauchi, A. Yoshimoto, T. G. Tsuru, H. Uchida, T. Narita, H. Matsumoto, Y. Kanemaru, Y. Maeda, H. Murakami, M. Sawada, Q. D. Wang

P-06 ***Ab initio high energy interactions for N-H^+ and N^+-H collisions. Integrated and transport cross sections and stopping power.***

M. Buchowiecki

P-07 ***M-shell X-ray emission for Ho target induced by $Li^{1,2,3+}$ ions***

W. L. He, C. R. Zhang, L. Y. Xie, C. Z. Dong

P-08 ***Theoretical and experimental investigations of projectile excitation to autoionizing states in swift carbon and oxygen ions collisions with helium***

A. Dubois, S. Passalidis, A. Laoutaris S. Nanos, A. Biniskos, E. P. Benis, T. J. M. Zouros

P-09 ***Measurement of ion-induced secondary electron emission from metal surfaces***

T. Fujita, J. Kim, A. Suzuki, M. Matsukuma, M. Hoshino

P-10 ***State-resolved autoionizing double-electron capture in intermediate-energy collisions of C^{4+} (1s2s ^3S) with He***

D. L. Guo, X. B. Zhu, Y. Gao, K. Z. Lin, X. L. Zhu, D. M. Zhao, R. T. Zhang, H. F. Yu, S. F. Zhang, X. Ma

P-11 ***Quantitative evaluation of argon in vanadium nitride films by non-Rutherford backscattering spectrometry and particle induced x-ray emission***

R. Hasebe, T. Osumi, Y. Gotoh

P-12 ***Contributions of Atomic, Molecular and Sputtering Data Workshop Group for the NIFS database***

H. Tsuchida, M. Goto, T. Hirayama, M. Hoshino, Y. Hoshino, A. Igarashi, A. M. Imai, K. Ishii, D. Kato, M. Kato, N. Kimura, M. Kitajima, T. Kusakabe, T. Kawate, K. Moribayashi, T. Morishita, I. Murakami, B. Peterson, H. A. Sakaue, N. Shimakura, K. Soejima

P-13 ***Cluster effects in collisions of hydrogen cluster ions with H_2 molecules***

Y. Bai , T. Wang, J. Zhao, S. T. S. Kovács, P. Herczku, R. Rácz, B. Sulik, S. Biri, G. Lakatos, Z. Juhász

P-14 ***Temperature Dependence of the Electron-Induced Radiolysis of Solid N_2O: Applications to Astrochemistry in the Outer Solar System***

Z. Juhász, D. V. Mifsud, S. Góbi, P. Herczku, B. Sulik, S. Ioppolo, N. J. Mason, Gy Tarczay

P-15 ***Connection between atomic excitation and ionisation***

N. W. Antonio, I. Bray, A. S. Kadyrov

P-16 ***Electron capture in collisions of highly charged argon ions with hydrogen atoms***

A. M. Kotian, N. W. Antonio, O. Marchuk, A. S. Kadyrov

P-17 ***Development of a Method for Measuring the Energy Loss of MeV Projectile Ions in a Thin Liquid Water Sheet***

H. Imamura, K. Asano, K. Ishii, Y. Kumagai

P-18 ***Excitation of helium by proton and antiproton impact***

L. Nagy, Zs. Bálint, S. Borbély

P-19 ***Molecular formation through reactions of low-energy molecular ions with an ice surface under low temperature conditions***

Y. Nakai, W.M.C. Sameera, K. Furuya, H. Hidaka, A. Ishibashi, N. Watanabe

Poster Sessions 2

P-20 ***Stopping power in transition metals, the importance of d-electron contribution***

J. P. Peralta, A. M. P. Mendez, D. M. Mitnik, C. C. Montanari

P-21 ***Machine learning model for K-shell ionisation***

D. M. Mitnik, C. C. Montanari, S. Segui, S. Limandri, J. A. Guzmán, A. Carreras, J. C. Trincavelli

P-22 ***An embedding-based neural network approach for stopping power prediction on multi-elemental targets***

F. Bivort Haiek, D. M. Mitnik, A. M. P. Mendez, J. P. Peralta, C. C. Montanari

P-23 ***The effect of irradiated ion on the swelling phenomenon of 4H-SiC***

T. Okawa, S. Momota, M. Watanabe

P-24 ***Positive and negative secondary ion emission from propanol droplets induced by fast heavy-ion collisions***

S. Otsuka, T. Takemura, H. Tsuchida, M. Saito, T. Majima

P-25 ***Hydrogen mediated heavy atom roaming in negative ion***

DG Piekarski, S. Pataraprasitpon, TFM Luxford, Roman Curík, J. Kocisek

P-26 ***Electronically resolved excitation in proton collisions with H_2***

C. T. Plowman, L. H. Scarlett, M. C. Zammit, I. Bray, D. V. Fursa

P-27 ***Evidence for the formation of excited fragments in the three body dissociation of methane***

C. P. Safvan, D. Garg, A. Cassimi, X. Fléchard, J. Rangama, J. Rajput

P-28 ***Charge State Distributions of Ions Transmitted Through a Single-Layer Graphene Sheet under Fast Li^+ and Li_2^+ Ion Irradiation***

K. Saito, Y. Kumagai, K. Ishii

P-29 ***Experimental K-shell ionization cross sections by electron impact: a comprehensive database for $1 \leq Z \leq 92$***

S. Segui, S. P. Limandri, A. C. Carreras, J. C. Trincavelli, J. A. Guzmán, C. C. Montanari, D. M. Mitnik

P-30 ***Coupled-channel calculations of FDCS for ionisation in 75 keV p + He collisions: Emission of low-energy electrons***

K. H. Spicer, N. W. Antonio, M. S. Schöffler, A. S. Kadyrov

P-31 ***State selective charge-exchange cross sections in collisions between C^{q+} ions with sodium atoms***

K. Tőkési, B. G. Csillag, G. Anda, D. Dunai, D. Nagy, D. I. Réfy, M. Vécsei, S. Zoletnik

P-32 ***Energy loss function of samarium determined from the reflection electron energy loss spectroscopy spectra***

T.F. Yang, R.G. Zeng, L.H. Yang, A. Sulyok, M. Menyhárd, K. Tőkési, Z.J. Ding

P-33 ***Electron capture cross sections in Ne^{8+} ions collision with H_2 and He***

K. Tőkési, and Y. WU

P-34 ***Ionization of Noble Gases by Collisions with Fast Molecular Ions Depending on the Molecular Axis Orientation***

M. Umemura, Y. Kumagai, K. Ishii

P-35 ***Collision-induced atomic alignment and magnetic-substate ionization of medium- and high-Z_t elements***

X. Wang, Y. Liu, J. Ren, X. Ren, Y. Zhao, Z. Xu, R. Cheng, G. Xiao

P-36 ***Vicinage effect on convoy electrons from carbon foils under heteronuclear diatomic ion bombardment***

Y. Yano, U. Ozeki, T. Takahashi, S. Ishii, K. Sasa, S. Tomita

P-37 ***Influence of plasma ion state and epitaxial atoms in sputtering system***

Gui-Sheng Zeng and Sheng-Hui Chen