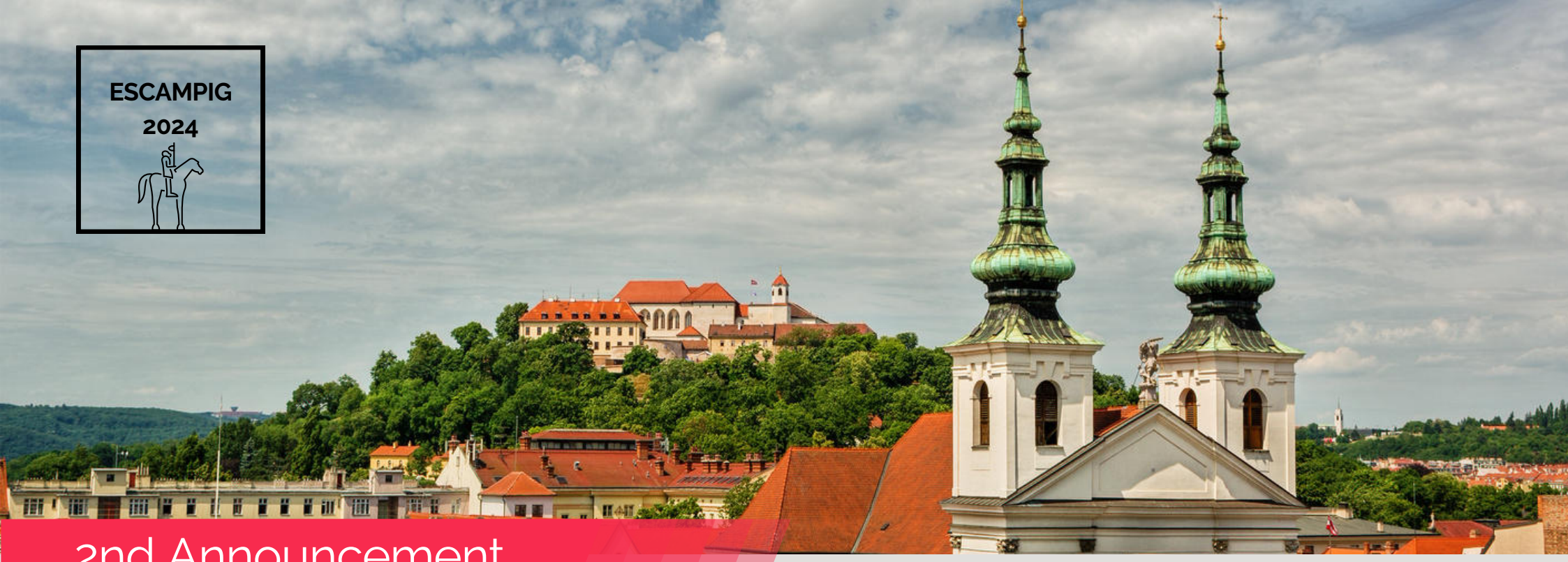

2nd Announcement

ESCAMPIG 2024

9- 13 JULY 2024, BRNO, CZECH REPUBLIC

The ESCAMPIG (Europhysics Conference on Atomic and Molecular Physics of Ionized Gases) is an international biennial conference of the EPS (European Physical Society). The conference topics comprise basic and applied plasma research. 26th ESCAMPIG will be organized by the Department of Plasma Physics and Technology of Masaryk University (MUNI) in cooperation with the CEPLANT and the Union of Czech Mathematicians and Physicists.

The conference includes plenary invited general and topical lectures, poster sessions and workshops. Some contributed abstracts covering relevant issues will be selected by the International Scientific Committee and authors will be asked to give a short (hot-topic) oral presentation.

CONFERENCE TOPICS

- Atomic and molecular processes in plasmas
- Transport phenomena, particle velocity distribution function
- Physical basis of plasma chemistry
- Plasma surface interaction (boundary layers, sheath, surface processes)
- Plasma diagnostics
- Plasma and discharges theory and simulation
- Self-organization in plasmas, dusty plasmas
- Upper atmospheric plasmas and space plasmas
- Low pressure plasma sources
- High pressure plasma sources
- Plasmas and gas flows
- Laser produced plasmas

WILLIAM CROOKES PRIZE

ESCAMPIG awards the William Crookes prize to a mid-career researcher who has been recognized to have made major contributions on the scientific topics covered by the ESCAMPIG.

VENUE

The conference will be held on the Campus of the Faculty of Information Technology of the Brno University of Technology (BUT), within easy reach of the center of Brno. The venue is located in the former Monastery of the Carthusian Order, which was founded in 1375. In the Campus historic buildings are sensitively complemented by two new lecture hall complexes.

TRAVEL

Brno has its own airport Brno-Tuřany (BRQ), with regular Ryanair flights to London. Brno can be also reached conveniently from Prague (PRG), Vienna (VIE) or Bratislava (BTS) airports.

IMPORTANT DEADLINES

Abstract Submission: March 8, 2024
Nominations for Crookes Prize: February 28, 2024
Acceptance Notification: April 12, 2024
Early Registration: May 31, 2024

REGISTRATION FEE

The conference fee includes scientific program, welcome reception, conference dinner, excursion, coffee breaks and all lunches during the conference.

	Early	Late (After May 31)
Regular	530€	580€
EPS Members	510€	560€
Students	380€	430€
	Accompanying BASIC*	Accompanying FULL**
	200€	350€

*BASIC: Includes excursion, accompanying person programme, conference dinner, welcome reception
**FULL: BASIC + coffee breaks, lunches

CANCELLATION POLICY

- Before June 15, 2024: No cancellation costs will be incurred.
- From June 16 to June 30: 50% refund will be provided.
- From July 1 onwards: No refund will be available.
- No-show: No reimbursement will be made.

HOTELS

Special rates for ESCAMPIG 2024 registered participants have been negotiated with hotels. The distance from the conference venue to any of the hotels, in a direct line, ranges between 2,800 and 3,900 meters. Events held at external venues are within a reasonably comfortable walking distance from the hotels. Participants are encouraged to contact the hotels directly to make reservations using the reservation code provided in their registration confirmation email.

ABSTRACT SUBMISSION

The abstracts of the contributions to the conference should be submitted following the guidelines and the template file that will be available on the conference website. All contributed papers will be reviewed by the International Scientific Committee.

CONFERENCE ABSTRACTS

All conference abstracts will be published online in a Conference Book of Abstracts following the conference.

INTERNATIONAL COMMITTEE

Chairman: Carlos Pintassilgo (Portugal)
Ronny Brandenburg (Germany)
Claudiu Costin (Romania)
Aranka Derszi (Hungary)
Anatoly Filippov (Russia)
Victor Herrero (Spain)
František Krčma (Czech Republic)
Tiberiu Minea (France)
Nikola Škoro (Serbia)
Eugen Stamate (Denmark)
Francesco Taccogna (Italy)
Erik Wagenaars (United Kingdom)

LOCAL ORGANIZING COMMITTEE

Chairman: Zdeněk Bonaventura (MUNI)
Co-Chairman: Tomáš Hoder (MUNI)
Bohumila Tesaříková (MUNI)
František Krčma (BUT)
Ondřej Jašek (MUNI)
Pavel Dvořák (MUNI)

CONTACT

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Kotlářská 267/2, Brno 602 00
Czech Republic
Phone: +420 549 493 625
Email: escampig2024@physics.muni.cz

GENERAL INVITED SPEAKERS

Peter Bruggeman (USA)
Declan Diver (United Kingdom)
Gabi Daniel Stancu (France)
Holger Kersten (Germany)
Juraj Országh (Slovakia)
Kinga Kutasi (Hungary)
Luís L. Alves (Portugal)
Lecture of the Crookes Prize winner

TOPICAL INVITED SPEAKERS

Ana Maria Gómez Ramírez (Spain)
Augusto Stancampiano (France)
Catalin Vitelaru (Romania)
Filippo Cichocki (Italy)
Luca Vialetto (USA)
Marija Puač (Serbia)
Miguel Jiménez Redondo (Germany)

IUPAP C16 EARLY CAREER SCIENTIST PRIZE

The **IUPAP C16** Early Career Scientist Prize is recognizing outstanding contributions made by scientists at early stages of their careers in the field of Plasma Physics. The year 2023 is awarded to **Jannis Teunissen (NL)**: **"**For development of a suite of numerical codes to simulate streamer discharges in full 3D with their intricate inner structure, including their interactions and branching statistics, in agreement with experiments, as well as for contributions to codes and predictions for relativistic MHD in astrophysics, and to machine learning for space weather."

IUPAP PRIZE TALK: "A future perspective on modeling streamer discharges: longer time scales and other gasses."

PRELIMINARY CONFERENCE SCHEDULE

Day	Time	Session
Tue Jul 9	16:30 - 20:00	Registration
	18:00 - 21:30	Welcome Reception
Wed Jul 10	8:15 - 8:30	Opening
	8:30 - 10:30	Session 1
	10:30 - 11:00	Coffee break
	11:00 - 13:00	Session 2
	13:00 -14:30	Lunch
	14:30 - 16:30	Posters 1
	16:30 - 17:00	Coffee break
	17:00 - 19:00	Workshop 1
Thu Jul 11	8:30 - 10:30	Session 3
	10:30 - 11:00	Coffee break
	11:00 - 13:00	Session 4
	13:00 - 14:30	Lunch
	14:30 - 16:30	Posters 2
	16:30 - 17:00	Coffee break
	17:00 - 19:00	Workshop 2
	20:00 - 01:00	Conference Dinner
Fri Jul 12	8:30 - 10:30	Session 5
	10:30 - 11:00	Coffee break
	11:00 - 13:00	Session 6
	13:00 - 14:30	Lunch
	14:30 - 17:00	Excursions
	17:00 - 19:00	Lab tours
	18:00 - 21:30	Garden party
Sat Jul 13	8:30 - 10:30	Session 7
	10:30 - 11:00	Coffee break
	11:00 - 12:30	Session 8
	12:30 - 13:00	Closing and Farewell

WORKSHOP1

Predictive and practical simulations of plasma systems and plasma processes

Chairman: Adam Obrusník (MUNI, PlasmaSolve, Czech Republic)

This topical workshop explores the evolution of plasma modeling and simulation over the past 10-20 years, highlighting both success stories and challenges. It features four renowned speakers from the field of low-temperature plasma, each with distinct primary expertise: calculating fundamental data for models, engineering plasma chemistry, modeling of industrial low-pressure systems, and elucidating new plasma mechanisms. The workshop will commence with each expert sharing their insights and experiences regarding plasma process simulation and their future outlook on the topic. This will be followed by a panel discussion, during which the audience, facilitated by the moderator, is encouraged to pose questions related to the workshop's theme. The workshop will be moderated by Adam Obrusník who is a researcher dedicated to the development of plasma models for various applications, such as material deposition and plasma catalysis but also an entrepreneur who operates a company providing simulation solutions to diverse industries utilizing plasma.

SPEAKERS

Anna Nelson (United Kingom)
Vasco Guerra (Portugal)
Dennis Barton (Germany)
Mark J. Kushner (USA)

WORKSHOP2

Advancements in non-equilibrium plasma laser diagnostics

Chairman: Gabi Daniel Stancu (CentraleSupélec, France)

Non-equilibrium plasmas are complex reactive environments driven by multiphysics interactions that are employed or studied to meet numerous societal goals. Given the high intricacy of these systems, laser diagnostics remain essential to the advancement of plasma knowledge and engineering. Their exceptional features enable probing with high sensitivity, selectivity, spatial and temporal resolutions crucial plasma parameters such as non-equilibrium temperatures, densities of key reactive species, velocity and flux distributions and fields. The workshop will expose recent progresses achieved in advanced laser diagnostics for the investigation of non-equilibrium plasmas. Fundamental properties of non-equilibrium plasmas are tackled here by resonant or non-resonant, single or multi-photon and multi-wave techniques, including cavities and ultrashort lasers with wavelengths from ultraviolet to the THz spectroscopic domain. Principles, challenges, examples of studies of non-equilibrium plasmas and perspectives will be addressed.

SPEAKERS

Jean-Pierre van Helden (Germany)
Alexandros Gerakis (Luxembourg)
Pavel Dvořák (Czech Republic)
Arthur Dogariu (USA)

EXCURSIONS

The participants are asked to pre-register for excursions in the registration form.

ŠPILBERK CASTLE

Špilberk Castle has dominated Brno's skyline since the mid-13th century. Historically, it served not only as a symbol of safety and protection but also, at times, inspired fear and represented oppression for the city's citizens. A sightseeing tour of the castle includes the Casemates prison, historical fortifications, and a lookout tower.

BRNO UNDERGROUND

The Brno underground offers several mysterious tours beneath the historical center of the city. The Labyrinth Under the Vegetable Market is a maze navigating through Brno's oldest cellar spaces. Beneath the Church of St. James, visitors can explore the second-largest ossuary in Europe, a place of reverence imbued with a mystical atmosphere. Not far from there, a trio of unique underground reservoirs creates the striking impression of an extensive underground labyrinth.

VILLA TUGENDHAT

Villa Tugendhat, designed by the renowned German architect Ludwig Mies van der Rohe, was constructed in 1929–1930. It quickly became an icon of modern architecture in Europe, particularly noted for its revolutionary approach to space and the use of industrial building materials. The villa's history is as captivating as its cultural significance. In 2001, Villa Tugendhat was inscribed on the UNESCO World Heritage List, cementing its status as a pivotal work of architecture

CIPHER GAME

A cipher game is an activity that involves solving logical puzzles, riddles, and ciphers. Participants, in teams, receive a set of ciphers that guide them from one location to another, with the requirement to solve them in order to progress further or uncover hidden information. The aim of the game is by deciphering codes to reach the final goal first. Cipher games are very popular in the Czech Republic as a form of entertainment, offering a way to explore different parts of the country while having fun and developing teamwork skills.

SOCIAL EVENTS

The participants are asked to pre-register for the social events in the registration form.

WELCOME RECEPTION

The welcome reception will take place at the conference venue on Tuesday, July 9, from 6 p.m. The reception will feature a performance by the University Folk Song and Dance Ensemble Poľana Brno, along with their folk dance school.

CONFERENCE DINNER

The conference dinner will take place at the Brewery House Poupě (Dominikánská 342, Brno) on Thursday, July 11, 2024, at 8 p.m. A buffet-style dinner offering a wide selection, including non-alcoholic beverages, beer, and wine, is planned. This dinner is included in the conference fee.

GARDEN PARTY

The garden party will be held on Friday, July 12, from 6 p.m. at the Botanic Garden of Masaryk University (Kotlářská 2, Brno). A BBQ-style dinner will be available, including soft drinks, beer, and wine. Guests will have the opportunity to visit the greenhouses of the Botanic Garden. Additionally, lab tours at the Department of Plasma Physics and Technology will be possible prior to the Garden Party

ACCOMPANYING PERSONS

Optional programs for accompanying persons will be prepared and could additionally be arranged with the LOC upon request.