PLASMA SCHOOL
Bad Honnef

Program of the school 2026

Saturday, October 3rd:

Arrival/registration from 17:00 - 21:00 (dinner included)

Sunday, October 4th:

8:45 - 9:00	Welcome and introduction (plot of the school, information) *Marc Böke and Marina Prenzel, Ruhr-Universität Bochum &* *Tomáš Hoder, Zdeněk Bonaventura, Pavel Dvořák (Masaryk University Brno, Czech Republic)*
9:00 - 10:30	Introduction I: Fundamentals of Plasma Physics *Achim von Keudell, Ruhr-Universität Bochum, Germany*
10:30 - 10:45	Coffee break
10:45 - 12:15	Introduction II: Fundamentals of Plasma Physics *Achim von Keudell, Ruhr-Universität Bochum, Germany*
12:30 - 13:30	Lunch
13:45 - 15:15	Plasma modelling I: General Overview *Annemie Bogaerts, University of Antwerp, Belgium*
15:15 - 15:30	Coffee break
15:30 - 17:00	Plasma sources I: Micro-wave plasmas *Alexander Navarrete, KIT, Germany*
17:00 - 17:30	Forum with teachers
18:30 - 20:00	Dinner
20:00	Evening lecture: History of plasma physics *Holger Kersten, CAU Kiel, Germany*

Monday, October 5th:

9:00 - 10:30	Plasma modelling II: Electron kinetics in atomic and molecular plasmas *Luís L. Alves, University of Lisbon, Portugal*
10:30 - 10:45	Coffee break
10:45 - 12:15	Plasma modelling III: Fluid modelling of discharge plasmas *Luís L. Alves, University of Lisbon, Portugal* *Antonio Tejero, University of Cordoba, Spain*
12:30 - 13:30	Lunch
13:45 - 15:15	Plasma diagnostics I: Basics of plasma spectroscopy *Sylvain Iseni, GREMI, CNRS/Univ. Orléans, France*
15:15 - 15:30	Coffee break
15:30 - 17:00	Plasma sources II: High pressure thermal plasmas and sources *Tony Murphy, CSIRO, Australia*
17:00 - 17:30	Forum with teachers
18:30	School Dinner

Tuesday, October 6th:

9:00 - 10:30	Plasma diagnostics II: Measuring electron density and ion flux *Jean-Paul Booth, École Polytechnique, France*
10:30 - 10:45	Coffee break
10:45 - 12:15	Plasma diagnostics III: Advanced optical diagnostics *Richard Engeln, ASML, Eindhoven, The Netherlands*
12:30 - 13:30	Lunch
14:00 - 17:00	Modelling Workshop: 'Hands on a Boltzmann solver' *Luis L. Alves, University of Lisbon, Portugal, &* *Tejero del Caz, University of Cordoba, Spain*
	OR
	Experimental Workshop I: 'Basics of laser absorption spectroscopy' *Olivier Guiatella, LPP, École Polytechnique, France*
	OR
	Experimental Workshop II: 'Spectroscopic instruments and their application' *Sylvain Iseni, GREMI, CNRS/Univ. Orléans, France*
	OR
	Hiking etc. → Possible destinations can be requested from the organization team
18:30	Dinner
20:00	Evening lecture: FAIR Data Principles for Data Management and Open Science Practices *Marina Prenzel (RUB) and Markus M. Becker (INP Greifswald)*

Wednesday, October 7th:

9:00 - 10:30	Plasma sources III: High density magnetized plasma sources *Diederik Depla, Ghent University, Belgium*
10:30 - 10:45	Coffee break
10:45 - 12:15	Plasma sources IV: Dielectric Barrier Discharges *Olivier Guaitella, LPP, École Polytechnique, France*
12:30 - 13:30	Lunch
13:45 - 15:15	Plasma technologies I: Material processing *Stephanos Konstantinidis, University of Mons, Belgium*
15:15 - 15:30	Coffee break
15:30 - 17:00	Plasma technologies II: Plasma chemistry for bio-applications and in contact with liquids *Zdenko Machala, University of Bratislava, Slovakia*
17:00 - 17:30	Forum with teachers
18:30	Dinner
20:00	Poster session

Thursday, October 8th:

9:00 - 10:30	Plasma diagnostics IV: Plasma-Surface Interactions *Jan Benedikt, CAU Kiel, Germany*
10:30 - 10:45	Coffee break
10:45 - 12:15	Machine Learning for Low-Temperature Plasma Science *Jan Trieschmann, Kiel University, Germany*
12:30 - 13:30	Lunch

Program of the master class 2026 on Electrical breakdown and plasma initiation

Thursday, October 8th:

Arrival/registration from 17:00 - 21:00 (dinner included)

Regular lectures have duration of ~1:15h + 15min for final extended discussion

Friday, October 9th:

8:45 - 9:00	Welcome and introduction *Tomáš Hoder (Masaryk University, Czech Republic)*
9:00 - 10:30	Streamer breakdown and branching *Sander Nijdam (TU/e, Netherlands)*
10:30 - 10:45	Coffee break
10:45 - 12:30	Atmospheric electricity, transient luminous events and relativistic runaway discharges *Victor Pasko (PennState, USA)*
12:30 - 13:45	Lunch
13:30 - 15:00	Breakdown in Liquid media *Zdeněk Bonaventura (MUNI, Czechia)*
15:00 - 16:30	Master class poster session & coffee and biscuits
16:30- 18:00	Non-thermal to thermal plasma transition: arc discharges *Margarita Baeva (INP, Germany)*
18:30	Dinner

Saturday, October 10th:

9:00 - 10:30	Radio-frequency Gas Breakdown *Francesco Taccogna (ISTP Bari, Italy)*
10:30 - 11:00	Coffee break
11:00 - 12:30	Laser induced breakdown Libor Juha *(*PALS/HiLASE*, Czech Republic)*
12:30 - 13:30	Lunch