

PROGRAM

Bad Honnef Physics School 2025

Exciting nanostructures: Characterizing advanced confined systems

13 - 18 July 2025, Physikzentrum Bad Honnef

Organized by Christian Klinke (University of Rostock) and Sandrine Ithurria (ESPCI Paris)

Sunday, 13 July 2025

17:00 – 21:00 *Registration*

18:30 DINNER / Informal get-together

Monday, 14 July 2025

07:30 – 08:45 BREAKFAST

08:45 – 09:00 *Opening and welcome*
Prof. Christian Klinke and Prof. Sandrine Ithurria

09:00 – 10:15 *History of colloidal nanomaterials*
Prof. Alexander Eychmüller (TU Dresden)

10:15 – 10:45 COFFEE BREAK

10:45 – 12:00 *Shape Control in Colloidal Synthesis Using Organic Ligands*
Prof. Celso Demello Donega (Utrecht University)

12:00 **Conference Photo (in front of the Physikzentrum)**

12:15 LUNCH

Chair: Christian Klinke

14:30 – 15:45 *NMR chemical shifts beyond Numbers: Understanding electronic structure and coordination environments*
Prof. Christophe Coperet (ETH Zurich)

15:45 – 16:15 COFFEE BREAK

16:15 – 17:30 *Flash talks by the students*
Each talk has 2 min with 1 PDF slide on their subject/poster

18:30 DINNER

Tuesday, 15 July 2025

07:30 – 09:00 BREAKFAST

Chair: Beatriz Juarez

09:00 – 10:15 *Particle-based aerogels: the first 20 years*
Prof. Alexander Eychmüller (TU Dresden)

10:15 – 10:45 COFFEE BREAK

10:45 – 12:00 *Synthesis and Optoelectronic properties of 2D Nanocrystals*
Prof. Celso de Mello Donega (University Utrecht)

12:15 LUNCH

Chair: Sandrine Ithurria

14:30 – 15:45 *Nanoparticles in medical applications*
Prof. Beatriz Juarez (CSIC-ICMM Madrid)

15:45 – 16:15 COFFEE BREAK

16:15 – 17:30 *X-ray diffraction and synchrotron (SAX/WAX)*
Prof. Andrei Petukhov (Utrecht University)

18:30 DINNER

19:30 **Poster session 1**

Wednesday, 16 July 2025

07:30 – 09:00 BREAKFAST

Chair: Andrei Petukhov

09:00 – 10:15 *Time-resolved spectroscopy: Transient absorption and THz spectroscopy*
Prof. Micha Bonn (MPI Mainz)

10:15 – 10:45 COFFEE BREAK

10:45 – 12:00 *Non-classical 2D nanocrystals and their (non-linear) optical properties*
Prof. Jannika Lauth (University Tübingen)

12:15 LUNCH

14:00 – 18:00 Excursion, Coffee & Cake (Please bring hiking shoes and raincoat!)

18:30 DINNER (at the Physikzentrum)

Chair: Christian Klinke

19:30 – 21:00 **Meet the Editors**
Prof. Mischa Bonn (Journal of Chemical Physics)

Thursday, 17 July 2025

07:30 – 09:00 BREAKFAST

Chair: Moritz Kühnel

09:00 – 10:15 *k·p theory for nanostructures*

Prof. Juan Ignacio Climente (University Jaume I, Castelló de la Plana, Spain)

10:15 – 10:45 COFFEE BREAK

10:45 – 12:00 *Electronic transport through nanostructures*

Prof. Marcus Scheele (University Tübingen)

12:15 LUNCH

Chair: Sandrine Ithurria

14:30 – 15:45 *Advanced electron microscopy*

Prof. Lorenz Kienle (University Kiel)

15:45 – 16:15 COFFEE BREAK

16:15 – 17:30 *Theory of perovskite nanostructures*

Prof. Ivan Infante (BCMaterials, Spain)

18:30 DINNER

19:30 **Poster session 2**

Friday, 18 July 2025

07:30 – 09:00 BREAKFAST

09:00 – 10:15 *Cathodoluminescence of nanomaterials*
Dr. Sven Ebel (University of Southern Denmark)

10:15 – 10:45 COFFEE BREAK

10:45 – 12:00 *Energy conversion with nanomaterials*
Prof. Moritz Kühnel (University Stuttgart-Hohenheim)

12:00 – 12:15 **Poster awards** and closing remarks
Prof. Christian Klinker and Prof. Sandrine Ithurria

12:30 LUNCH

End of the physics school and Departure