

Bad Honnef Physics School

Supported by the Wilhelm and Else Heraeus-Foundation

Applied Photonics

September 20 – 25, 2026,

Physikzentrum Bad Honnef, Germany

Organised by:

Walter Neu (Hochschule Emden/Leer – University of Applied Sciences, Germany)

Photonics serves as a core driver of today's technological progress, with applications spanning a wide range of fields, from quantum technologies to space exploration. The physics school aims to provide a concise introduction to these topics for advanced master and doctoral researchers. The speaker lineup is highlighted by three Nobel laureates,

alongside distinguished experts from both industry and academia. Interactive participation sessions will offer an ideal forum to deepen understanding and foster interdisciplinary exchange. Participants are encouraged to present and discuss their research work during poster sessions held throughout the school.

Speakers:



- Stefan Hell:** Beyond diffraction (MPI-Nat. Göttingen und U Heidelberg, DE)
- Donna Strickland:** Short light pulses (U Waterloo, CA)
- Anne L'Huilier:** Atoms at the attosecond scale (U Lund, SE)

- Henrik Mouritsen:** Animal navigation (IBU, Neurosensorics U Oldenburg, DE)
- Christoph Rüssmann:** Ophthalmology (HAWK Göttingen, DE)
- Jürgen Popp:** Imaging in biophotonics (Leibniz MPHT, U Jena, DE)
- Christine Hellweg:** Space life sciences (DLF, Cologne, DE)
- Nadine Wottradt:** Microfluidic and diagnostics (FhI ILT, Aachen, DE)
- Martin Silies:** Ultrafast nano-optics (ILO, HS Emden/Leer, DE)
- Correia Denz:** Structured light fields (PTB Berlin & U Münster, DE)
- Peter Lievens:** Cluster spectroscopy (KU Leuven, Leuven, BE)
- Walter Neu:** Hyperloop (ILO & IHT, HS Emden/Leer, DE)
- Dirk Richter:** Airborne atmospheric research (QUANTA3, CU Boulder, USA)
- Merve Wollweber:** Smart farming (LZH, Hannover, DE)
- Carlos Antón-Solanas:** Quantum communication (U Madrid, Madrid, ES)
- Martin Beye:** Ultrafast spectroscopy (Stockholm University, SE)
- Peter Kürz:** Optics production technology (ZEISS SMT, Oberkochen, DE)
- Sebastian Rode:** Sensing & positioning (SmarAct Metrology, Oldenburg, DE)

Application & more information: www.pbh.de



Applied Photonics

Bad Honnef Physics School

Workshop



Datum:

So, 20.09.2026 18:30 – Fr, 25.09.2026 14:00

Sprecher:

Walter Neu (Institute for Laser and Optics, Emden/Leer)

Adresse:

Physikzentrum Bad Honnef
Hauptstr. 5, 53604 Bad Honnef, Germany

Sprache:

Englisch

Kontaktperson:

Dr. Victor Gomer (Physikzentrum Bad Honnef), gomer@pbh.de

Beschreibung

Scientific organizer:

Prof. Dr. Walter Neu (University of Applied Sciences Emden/Leer, Institute for Laser and Optics, Germany)

<https://www.dpg-physik.de/veranstaltungen/2026/applied-photonics>



Program Applied Photonics 2026

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DPG - Bad Honnef Physics School
 „Applied Photonics“ - 2026
 Stand 27.11.2025

Time	Sunday, 20.9.2026	Monday, 21.9.2026	Tuesday, 22.9.2026	Wednesday, 23.9.2026	Thursday, 24.9.2026	Friday, 25.9.2026
		Biophotonics & laser in medicine	Photonics & Quantum technology	Photonics and sustainability	Optical microscopy and nanophotonics	integrated optics
08:00		Breakfast / Poster display				
09:00 - 10:30		Photonics in ophthalmology Christoph Russmann, HAWK Göttingen	Advanced Quantum Communications Carlos Antón Solanas, UAM Madrid	Airborne atmospheric research Dirk Richter, QUANTA3, CU Boulder	Ultrafast nano-optics Martin Silies, HSEL	Optics production technology Peter Kürz, Zeiss, SMT
10:30		Coffee break / Poster display				
11:00 - 12:30		Imaging/Raman in Biophotonics Jürgen Popp, IPHT Jena	The physics of high-intensity, ultrashort optical pulses Donna Strickland, U Waterloo	Poster session and student's lecture (N.N.)	Nonlinear microscopy and structured light fields Cornelia Denz, PTB	Sensing and positioning Sebastian Rohde, SmarAct
12:30		Lunch break / Poster display				
13:30 - 15:00		Space Life Sciences Christine Hellweg, DLR Köln	The physics of atoms at attosecond scale (online) Anne L'Huillier, U Lund	Excursion (hiking and photon interaction)	Beyond diffraction Stefan Hell , talk given by Volker Westphal MPI Gö	
16:30		Coffee break / Poster display			Coffee break / Poster	
17:00 - 18:30	Arrival, reception, and registration	Microfluidics and diagnostics Nadine Nottrodt, ILT	Ultrafast Spectroscopy in Solid Matter Martin Beye, U Stockholm, DESY		Clusters and Laser Spectroscopy Peter Lievens, KU Leuven	
18:30	18:00 Buffet Supper	Supper	Supper		Conference Diner	
19:30	Animal Navigation from molecules and biophysics to behaviour and cognition H. Mouritsen, UOI	Lichtenbergkeller	Hyperloop - Mobility below the speed of light Walter Neu, HSEL	Smart farming Merve Wollweber, LZH	Lichtenbergkeller	

Prof. Dr. Henrik Mouritsen

Head of Neurosensorics/Animal Navigation group, Institute for Biology and Environmental Sciences, Carl von Ossietzky Universität Oldenburg

Prof. Dr. Christoph Russmann

Dean Health Campus HAWK und UMG Göttingen, University of Applied Sciences and Arts HAWK Göttingen

Prof. Dr. Jürgen Popp

Scientific Director Leibniz Institute for Photonic Technologies e.V. Jena, Institute of Physical Chemistry (IPC) Friedrich Schiller University Jena

PD Dr. med. vet. habil. Christine Hellweg

German Aerospace Center (DLR), Institute of Aerospace Medicine Radiation Biology, and Helmholtz Research School 'SpaceLife'

Dr. Nadine Nottrodt

Fraunhofer Institute for Laser Technology ILT, Aachen, DE

Dr. Carlos Antón-Solanas

Department of Physics of Materials, Condensed Matter Physics Center, Universidad Autónoma de Madrid, Spain

Prof. Dr. Donna Strickland

Nobel laureate 2018 in Physics, Department of Physics and Astronomy, Ultrafast Laser Group, University of Waterloo, ON, Canada

Prof. Dr. Anne L'Huillier

Nobel laureate 2023 in Physics, Department of Physics, Centre for Nanoscience, Lund University, Sweden

Prof. Dr. Martin Beye

Head of X-Ray Spectroscopy, Department of Physics, Stockholm University, Sweden

Prof. Dr. Walter Neu

HS Emden/Leer - University of Applied Sciences, Institute for Laser and Optics (ILO), Director

Dr. Dirk Richter

CEO Quanta3, Longmont, Colorado, USA

PD Dr. Merve Wollweber

Head of Food and Farming Group, Industrial and Biomedical Optics Department, Laser Zentrum Hannover e.V. (LZH)

Prof. Dr. Martin Silies

HS Emden/Leer - University of Applied Sciences, Institute for Laser and Optics (ILO), Optoelectronics, DE

Professor Dr. Cornelia Denz

President of the Physikalisch-Technische Bundesanstalt (PTB), the national metrology institute of Germany, Associate Professor, Department of Physics, University of Muenster

Prof. Dr. Dr. h.c. mult. Stefan Hell (talk given by Volker Westphal)

Nobel laureate 2014 in Chemistry, Director at the Max Planck Institute for Multidisciplinary Sciences and at the Max Planck Institute for Medical Research

Prof. Dr. Peter Lievens

Head of CLASS – Clusters and Laser Spectroscopy, Department of Physics and Astronomy, Vice Rector for International Policy at the KU Leuven.

Dr. Peter Kürz

ZEISS SMT, Head of Field of Business High-NA-EUV, Oberkochen, DE

Dr. Sebastian Rode

CEO SmarAct Metrology GmbH & Co. KG, Oldenburg, DE