



The Hamburg Centre for Ultrafast Imaging
International Symposium 2013

Hamburg
Campus Bahrenfeld, CFEL
November 13 – 15



EMBL



The Hamburg Center for Ultrafast Imaging

International Symposium 2013

Program

Wednesday, November 13, 2013

- 8:30** Registration
- 9:30** **Philip Anfinrud**
Picosecond Photobiology: Watching a Signaling Protein Function in Real Time via 150 Picosecond Time-Resolved X-ray Diffraction and Solution Scattering
- 10:15** Coffee Break
- 10:45** **Rienk van Grondelle**
The Quantum Design of Photosynthesis
- 11:30** **Petra Fromme**
Time-Resolved Femtosecond Nanocrystallography of membrane proteins opens a new Era in Structural Biology
- 12:15** Lunch
- 14:00** **Rick Millane**
Molecular imaging using x-ray free-electron laser diffraction by nanocrystals
- 14:45** **William A. Eaton**
Toward observing transition paths in protein folding by single molecule fluorescence
- 15:30** Coffee Break
- 16:00** Poster Session
- 18:00** Welcome Reception

Thursday, November 14, 2013

- 9:30** **Jonathan Tennyson**
R-matrix calculations of electron molecule (re-) collisions
- 10:15** Coffee Break

- 10:45** **Jean Dalibard**
Spinor Bose-Einstein condensates with antiferromagnetic interactions
- 11:30** **Hossein Sadeghpour**
Dynamics in large carbon-rich structures: how the first carbon molecules may have synthesized in intersellarspace
- 12:15** Lunch
- 14:00** **Tilman Pfau**
How electrons catch ground state atoms
- 15:00** Presentation of
"Hamburger Preis für theoretische Physik"
- 16:00** Reception
- 16:30** Laureat's Speech
Chris H. Green

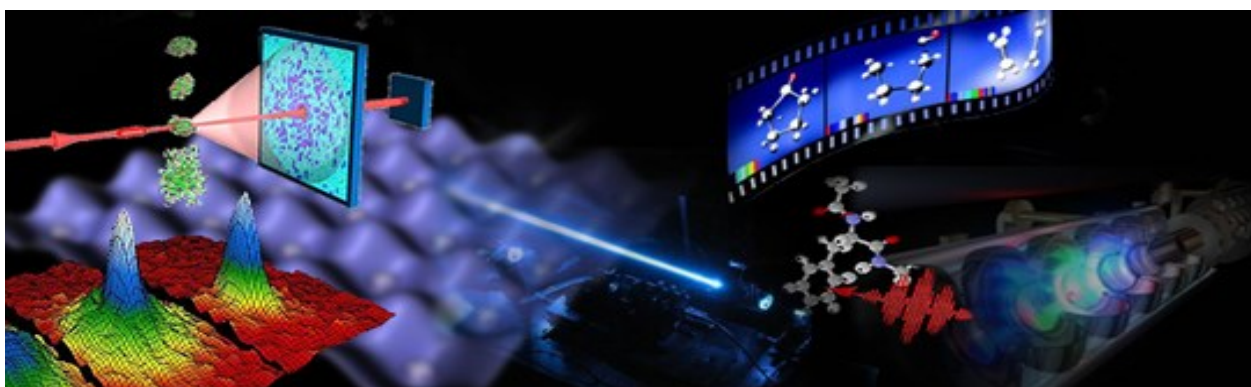
Friday, November 15, 2013

- 9:30** **Thomas Kühne**
Microscopic properties of liquid water from combined ab initio molecular dynamics and energy decomposition studies
- 10:15** Coffee Break
- 10:45** **Walter Kob**
Influence of the glass transition on the liquid-gas spinodal decomposition
- 11:30** **Alexey Kimel**
Femtosecond control of the exchange spin-spin interaction
- 12:15** Lunch
- 14:00** Joint Session of PIER Photo Science Colloquium and CUI Symposium
Peter Fratzl
Unraveling the mechanical behavior of protein-based natural materials by multi-scale X-ray diffraction analysis



Program Award Ceremony

- 15:00** Welcome Address
Petra Herz
Chairwomen of the Executive Board, Joachim Herz-Stiftung
- Opening Speeches
Horst-Michael Pelikahn
State Secretary, Ministry of Science and Research, Free and Hanseatic City of Hamburg
- Heinrich Graener**
Dean of the Faculty of Mathematics, Informatics and Natural Sciences (MIN), Universität Hamburg
- Statement of the Selection Committee
Klaus Sengstock
Spokesperson of the selection committee and CUI, Universität Hamburg
- Laudatio
John Bohn
Associate Research Professor, Department of Physics, JILA, University of Colorado
- Interview
Ralf Krauter, *science journalist*, and
Chris H. Greene
- Presentation of the Award to
Chris H. Greene
- 16:00** Reception
- 16:30** Lecture
Chris H. Green, *Purdue University*



Location, contact and directions

Location

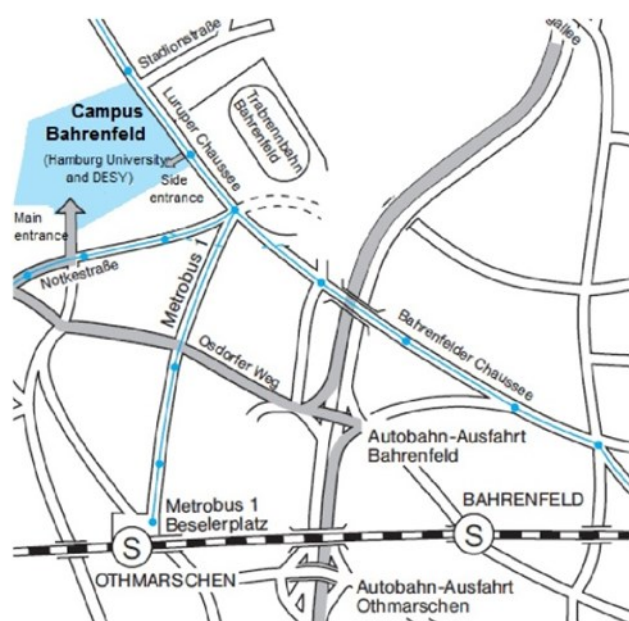
Campus Bahrenfeld
Notkestraße 85 (Main Entrance)/Luruper Chaussee 149 (Side Entrance)
Building 99 (CFEL), Foyer Seminar-room I - III

Contact

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Directions:



By train: to Hamburg-Altona station, then continue by taxi (travelling time ~15min) or take a bus (see below).

By bus: To reach the side gate (recommended), take bus line 2 (direction Schenefeld Mitte) from Altona train station and get off at "Luruper Chaussee/DESY", travelling time ~20min.

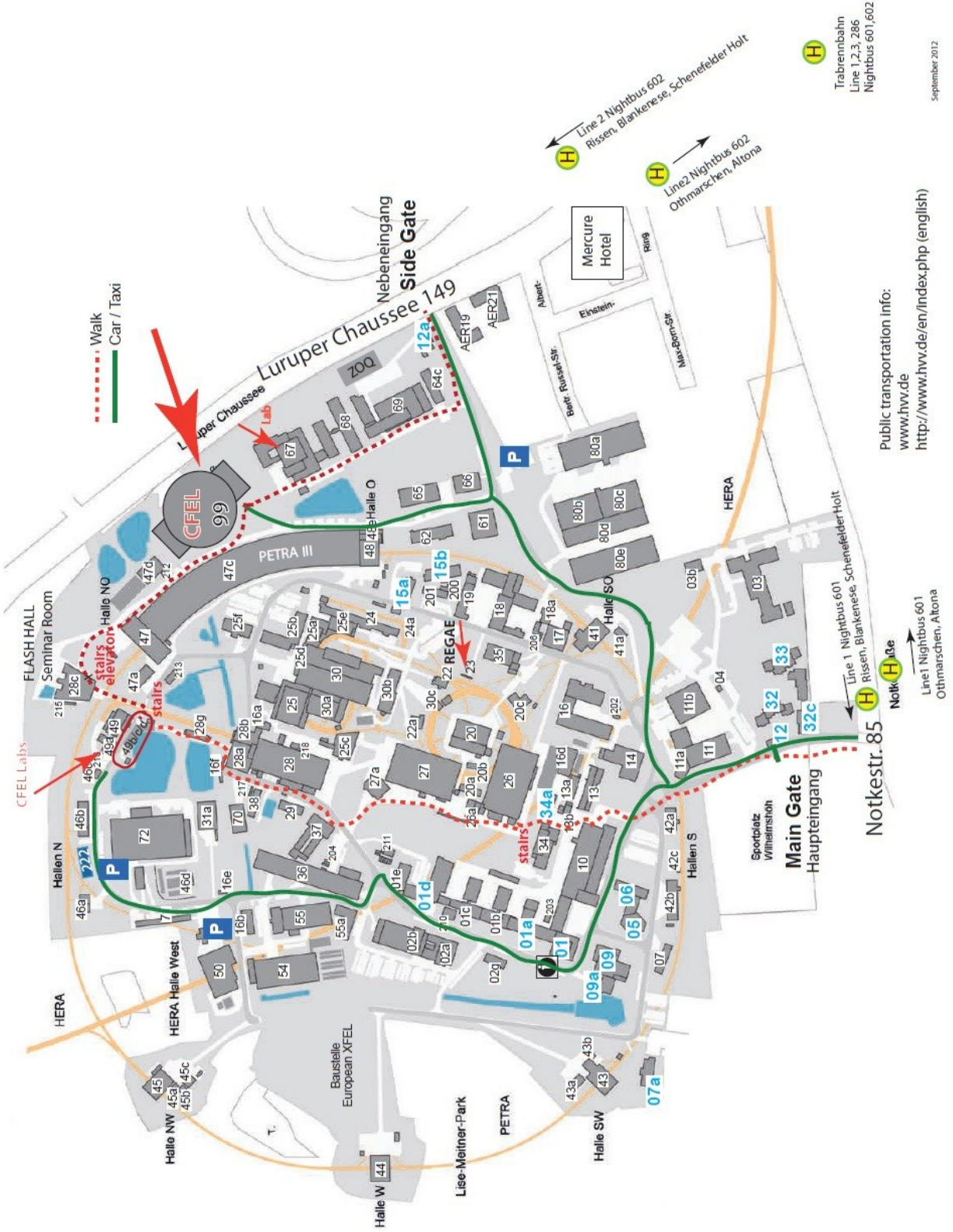
From train station "S-Bahn Othmarschen", take bus line 1 (direction "Schenefelder Holt") directly to the main entrance of the campus (bus stop "Zum Hünengrab/DESY"), traveling time ~25 min.

By plane: The campus can be reached from Hamburg airport by taxi in ~30min. Alternatively, take suburban train S1 to Altona or Othmarschen (~40min, direct train) and a bus from there (see above).

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Campus Map



Trabrennbahn
 Line 1,2,3, 286
 Nightbus 601,602

Public transportation info:
 www.hvv.de
<http://www.hvv.de/en/index.php> (english)

September 2012

List of invited Speakers

Philip Anfinrud (National Institutes of Health, Bethesda, Maryland)

Picosecond Photobiology: Watching a Signaling Protein Function in Real Time via 150 Picosecond Time-Resolved X-ray Diffraction and Solution Scattering

Jean Dalibard (Département de Physique de l'École Normale Supérieure, Paris, France)

*Bose-Einstein condensates and antiferromagnetic interactions:
An Illustration of symmetry breaking in Quantum Mechanics*

William A. Eaton (National Institutes of Health, Bethesda)

Toward observing transition paths in protein folding by single molecule fluorescence

Peter Fratzl (Max-Planck Institute of Colloids and Interfaces, Department of Biomaterials, Potsdam, Germany)

Unraveling the mechanical behavior of protein-based natural materials by multi-scale X-ray diffraction analysis

Petra Fromme (University of Arizona, Tucson, USA)

Time-Resolved Femtosecond Nanocrystallography of membrane proteins opens a new Era in Structural Biology

Rienk van Grondelle (Vrije Universiteit Amsterdam, Netherlands)

The Quantum Design of Photosynthesis

Alexey Kimel (Radboud University Nijmegen, Netherlands)

Femtosecond control of the exchange spin-spin interaction

Walter Kob (Université de Montpellier, France)

Influence of the glass transition on the liquid-gas spinodal decomposition

Thomas Kühne (Johannes Gutenberg Universität Mainz, Germany)

Microscopic properties of liquid water from combined ab initio molecular dynamics and energy decomposition studies

Rick Millane (University of Canterbury, New Zealand)

Molecular imaging using x-ray free-electron laser diffraction by nanocrystals

Tilman Pfau (Physikalisches Institut, Universität Stuttgart, Germany)

How electrons catch ground state atoms

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Hossein Sadeghpour (ITAMP, Harvard-Smithsonian Center for Astrophysics, Cambridge, Massachusetts, USA)

Dynamics in large carbon-rich structures: how the first carbon molecules may have synthesized in interstellar space

Jonathan Tennyson (University College London, UK)

R-matrix calculations of electron molecule (re-) collisions