PIER Graduate Week

Interdisciplinary lectures and workshops
for PhD students

5–8 Oct 2015

CFEL, Bahrenfeld Campus, Hamburg

Programme and registration
www.pier-hamburg.de/graduateweek2015

The PIER Graduate Week addresses PhD students, MSc students and interested scientists.

PIER

Partnership of Universität Hamburg and DESY

Course overview PIER Graduate Week 2015

Morning sessions: Introductory courses
Registration open from 8:30

Time	Monday, 5 October	Tuesday, 6 October	Wednesday, 7 October	Thursday, 8 October
09:00 – 10:30	A1 Introductory course Photon Science Robin Santra Fundamental processes in photon-matter interactions SR II	A1 Introductory course Photon Science Robin Santra Fundamental processes in photon-matter interactions SR II	A1 Introductory course Photon Science Robin Santra Fundamental processes in photon-matter interactions SR II	A1 Introductory course Photon Science Robin Santra Fundamental processes in photon-matter interactions SR II
	A2 Introductory course Infection and Structural Biology Holger Rohde Basic principles in bacteriology: From clinical symptoms to diagnostic procedures and treatment standards SR III	A2 Introductory course Infection and Structural Biology Holger Rohde Are we entering the post-antibiotic era? Emerging multi resistant bacteria as a major threat for public health SR III	A2 Introductory course Infection and Structural Biology Nicole Fischer Viruses relevant to human infections SR III	A2 Introductory course Infection and Structural Biology Nicole Fischer Emerging viruses and how to use new technologies to hunt for viruses SR III
10:30 – 11:00	**Coffee break**			
11:00 – 12:30	B1 Introductory course Particle and Astroparticle Physics Bernhard Schmidt Bright beams for Higgs hunting – the art of accelerating particles SR II	B1 Introductory course Particle and Astroparticle Physics Bernhard Schmidt Bright beams for Higgs hunting – the art of accelerating particles SR II	B1 Introductory course Particle and Astroparticle Physics Bernhard Schmidt Bright beams for Higgs hunting – the art of accelerating particles SR II	B1 Introductory course Particle and Astroparticle Physics Bernhard Schmidt Bright beams for Higgs hunting – the art of accelerating particles SR II
	B2 Introductory course Nanoscience Eva Weig Playing the nanoguitar: An introduction to nano-mechanical systems SR III	B2 Introductory course Nanoscience Elke Scheer Electronic transport at the nanoscale SR III	B2 Introductory course Nanoscience Fabio Pistolesi Introduction to electronic transport detection of nano-mechanical motion SR III	B2 Introductory course Nanoscience Heiner Linke Nanothermoelectrics – motivation and status SR III
12:30 – 14:00	**Lunch break**			

	Time	Monday, 5 October	Tuesday, 6 October	Wednesday, 7 October	Thursday, 8 October
Afternoon sessions: Focus courses & skills	14:00 – 15:30	C1 Focus course Photon Science Volker Westphal Super-resolved fluorescence microscopy: Concepts and applications SR II	C1 Focus course Photon Science Volker Westphal Super-resolved fluorescence microscopy: Concepts and applications SR II	C1 Focus course Photon Science Ian Robinson X-ray coherence in optical design SR II	C1 Focus course Photon Science Ian Robinson X-ray coherent diffraction analysis of materials SR II
		C2 Focus course Infection and Structural Biology Michael Otto Staph infections: toxins, biofilms, and antibiotic resistance SR III	C2 Focus course Infection and Structural Biology Michael Otto Staphylococcus epidermidis – beneficial microbe and opportunistic pathogen SR III	C2 Focus course Infection and Structural Biology Thomas Pietschmann Hepatitis C – time of change SR III	C2 Focus course Infection and Structural Biology César Muñoz-Fontela Immunology of Ebola virus in mice and humans SR III
		C3 Leadership skills (group A) Rob Thompson SR I	C3 Leadership skills (group A) Rob Thompson SR I	C3 Leadership skills (group A) Rob Thompson SR I	C3 Leadership skills (group A) Rob Thompson SR I
		C4 Presentation skills (group A) Elena Kaufman SR V	C4 Presentation skills (group A) Elena Kaufman SR IV	C4 Presentation skills (group A) Elena Kaufman SR IV	C4 Presentation skills (group A) Elena Kaufman SR V
	15:30 – 16:00	**Coffee break**			
Afternoon sessions: Focus courses & skills	16:00 – 17:30	D1 Focus course Particle and Astroparticle Physics Matthias Kadler Black-hole jets in the universe SR II	D1 Focus course Particle and Astroparticle Physics Matthias Kadler Black-hole jets in the universe SR II	D1 Focus course Particle and Astroparticle Physics Matthias Kadler Black-hole jets in the universe SR II	D1 Focus course Particle and Astroparticle Physics Matthias Kadler Black-hole jets in the universe SR II
		D2 Focus course Nanoscience Eva Weig Cavity nano-optomechanics SR III	D2 Focus course Nanoscience Elke Scheer Introduction to molecular electronics SR III	D2 Focus course Nanoscience Fabio Pistolesi Current blockade in Nano-electro-mechanical systems SR III	D2 Focus course Nanoscience Heiner Linke Quantum dots and nanowires as model systems for ideal thermoelectrics SR III
		D3 Leadership skills (group B) Rob Thompson SR I	D3 Leadership skills (group B) Rob Thompson SR I	D3 Leadership skills (group B) Rob Thompson SR I	D3 Leadership skills (group B) Rob Thompson SR I
		D4 Presentation skills (group B) Elena Kaufman SR V	D4 Presentation skills (group B) Elena Kaufman SR IV	D4 Presentation skills (group B) Elena Kaufman SR IV	D4 Presentation skills (group B) Elena Kaufman SR V
	17:30 – 18:00	**Coffee break**			
Evening sessions	18:00 – 20:00	Scientific colloquium and welcome reception Addy Pross What is life? How physics enables chemistry to become biology SR I-III	Industry talk and reception Guillermo Jenaro Rabadan Flight physics at Airbus Operations GmbH SR I-III	Poster session CFEL foyer BBQ 19:00 Uhr CFEL foyer	

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PIER Helmholtz Graduate School
A Graduate Education Program of Universität Hamburg in Cooperation with DESY