PIER Graduate Week 2018

Interdisciplinary lecture and workshop week for PhD students

8 – 11 OCT 2018

CFEL / Bahrenfeld Campus / Hamburg

PIER

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

Partnership of Universität Hamburg and DESY

Course Overview Graduate Week 2018

Programme & registration: www.pier-hamburg.de/graduateweek2018

Morning sessions: Introductory courses
Registration open from 8:30

Time	Course	Monday, 8 OCT	Tuesday, 9 OCT	Wednesday, 10 OCT	Thursday, 11 OCT
09:00 – 10:30	/ A1 Introductory course Particle & Astroparticle Physics	Caterina Doglioni, Lund University "Introduction to particle physics: the Standard model and beyond" SR III	Caterina Doglioni, Lund University "Introduction to particle physics: the Standard model and beyond" SR III	Caterina Doglioni, Lund University "Introduction to particle physics: the Standard model and beyond" SR III	Caterina Doglioni, Lund University "Introduction to particle physics: the Standard model and beyond" SR III
	/ A2 Introductory course Nanoscience	Francesc Perez-Murano, IMB-CNM, CSIC, Barcelona "Nanofabrication: Why and how do we realize smaller and smaller devices" SR II	Fredrik Westerlund, Chalmers University of Technology "Single molecule techniques for DNA analysis" SR II	Peter Wahl, University of St. Andrews "Nanoscience at the atomic scale" SR II	Anders Mikkelsen, Lund University "Next generation nano (opto)electronics function and fabrication: Importance of surfaces and interfaces" SR II
10:30 – 11:00	Coffee break				
11:00 – 12:30	/ B1 Introductory course Infection & Structural Biology	Iris Bruchhaus, BNITM, Hamburg "Interaction between Plasmodium falciparum infected erythrocytes and human endothelial cells" SR III	Iris Bruchhaus, BNITM, Hamburg "Unravel the pathogenicity of Entamoeba histolytica" SR III	Michael Kolbe, CSSB Hamburg / HZI Braunschweig "Molecular Mechanisms of Host-Pathogen Interaction" SR III	Michael Kolbe, CSSB Hamburg / HZI Braunschweig "Molecular Mechanisms of Host-Pathogen Interaction" SR III
	/ B2 Introductory course Photon Science	Andreas Hemmerich, Universität Hamburg "Part I: Laser cooling" SR II	Andreas Hemmerich, Universität Hamburg "Part II: Quantum gases" SR II	Roman Schnabel, Universität Hamburg "Part I: Squeezed states of light" SR II	Roman Schnabel, Universität Hamburg "Part II: Gravitational-wave detection" SR II
	/ B3 Introduction Physics for Biologists	Wolfgang Hillert, Universität Hamburg "Free Electron Lasers: powerful sources of EUV and X-ray radiation" SR I	Marta Sans, Hamburg Centre for Ultrafast Imaging, Universität Hamburg "Towards a generalised approach to the time-resolved study of enzymes" SR I	Adrian Mancuso, XFEL Hamburg "How to use the world's brightest X-ray laser to observe the structure of biomolecules (and also make movies of them in action too)" SR I	Axel Lindner, DESY "Towards the most fundamental structures of nature" SR I
12:30 – 14:00	Lunch break				

Afternoon sessions: Focus courses & skills

Time	Course	Monday, 8 OCT	Tuesday, 9 OCT	Wednesday, 10 OCT	Thursday, 11 OCT
14:00 – 15:30	/ C1 Focus course Particle & Astroparticle Physics	Ingrid-Maria Gregor, DESY "The ATLAS Detector at the LHC and its Upgrades" SR III	Ingrid-Maria Gregor, DESY "The ATLAS Detector at the LHC and its Upgrades" SR III	Ingrid-Maria Gregor, DESY "The ATLAS Detector at the LHC and its Upgrades" SR III	Ingrid-Maria Gregor, DESY "The ATLAS Detector at the LHC and its Upgrades" SR III
	/ C2 Focus course Photon Science	Arno Rauschenbeutel, Humboldt Universität zu Berlin "Chiral Quantum Optics" SR II	Arno Rauschenbeutel, Humboldt Universität zu Berlin "Chiral Quantum Optics" SR II	Piet Oliver Schmidt, Leibniz Universität Hannover / PTB Braunschweig "Atomic clocks" SR II	Piet Oliver Schmidt, Leibniz Universität Hannover / PTB Braunschweig "Atomic clocks" SR II
	/ C3 Transferable skills (group A)	Philipp Gramlich, Natural Science Careers, Munich "Presentation skills" SR V	Philipp Gramlich, Natural Science Careers, Munich "Presentation skills" SR V	Philipp Gramlich, Natural Science Careers, Munich "Presentation skills" SR V	Philipp Gramlich, Natural Science Careers, Munich "Presentation skills" SR V
	/ C4 Transferable skills (group A)	Andreas Voss "Entrepreneurship for Scientists" SR IV	Andreas Voss "Entrepreneurship for Scientists" SR IV	Andreas Voss "Entrepreneurship for Scientists" SR IV	Andreas Voss "Entrepreneurship for Scientists" SR IV
15:30 – 16:00	Coffee break				
16:00 – 17:30	/ D1 Focus course Infection & Structural Biology	Thomas Schneider, EMBL Hamburg "Macromolecular Crystallography" SR III	Thomas Schneider, EMBL Hamburg "Macromolecular Crystallography" SR III	N.N. SR III	Stefano Da Vela, EMBL Hamburg "Small-angle X-ray Scattering in Structural Biology: basics, practice and advanced usage" SR III
	/ D2 Focus course Nano Science	Francesc Perez-Murano, IMB-CNM, CSIC, Barcelona "Bottom-up and top-down fabrication for nanoelectronics and nanomechanics" SR II	Fredrik Westerlund, Chalmers University of Technology "Nanofluidics for DNA analysis" SR II	Peter Wahl, University of St. Andrews "Using nanoscience to solve the problem of high temperature superconductivity: from model systems to real materials" SR II	Gabi Schierning, IFW Dresden "Thermoelectric devices: Application-specific device design, fabrication technology and device characteristics" SR II
	/ D3 Transferable skills (group B)	Philipp Gramlich, Natural Science Careers, Munich "Presentation skills" SR V	Philipp Gramlich, Natural Science Careers, Munich "Presentation skills" SR V	Philipp Gramlich, Natural Science Careers, Munich "Presentation skills" SR V	Philipp Gramlich, Natural Science Careers, Munich "Presentation skills" SR V
	/ D4 Transferable skills (group B)	Andreas Voss, Concis Group Hamburg "Entrepreneurship for Scientists" SR IV	Andreas Voss, Concis Group Hamburg "Entrepreneurship for Scientists" SR IV	Andreas Voss, Concis Group Hamburg "Entrepreneurship for Scientists" SR IV	Andreas Voss, Concis Group Hamburg "Entrepreneurship for Scientists" SR IV
17:30 – 18:00	Coffee break				
18:00 – 20:00		/ E1 Scientific colloquium & welcome reception, SR I-III Orit Peleg, University of Boulder "The Physics of Disordered Living Systems: Collective Adaptation in Honeybee Swarms"	/ E2 Industry talk and get-together, SR I-II Aiko Ruprecht, Trioptics "Combining business and research: Advance development in optics"	/ Poster session CFEL foyer / BBQ starting at 19:00 at CFEL foyer	

Evening sessions

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