

# Infrared Free Electron Lasers: The State of the Art 2024

Sun 28/07

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15:00	<b>Room check in at Harnack Haus starts at 3:00 PM</b>	
16:00		
	<i>Harnack Haus</i>	15:00 - 17:00
17:00	<b>Registration: Registration (P0)</b>	
	<i>Planck Lobby, Harnack Haus</i>	17:00 - 18:00
18:00	<b>Welcome address &amp; Introduction to MPS and FHI</b>	<i>Gerard Meijer</i>
	<i>Hahn Lecture Hall, Harnack Haus</i>	18:00 - 18:30
	<b>History of FELs: From Stanford to FHI</b>	<i>Bill Colson</i>
	<i>Hahn Lecture Hall, Harnack Haus</i>	18:30 - 19:00
19:00	<b>Dinner</b>	
	<i>Restaurant, Harnack Haus</i>	19:00 - 20:00
20:00	<b>Get Together</b>	
21:00	<i>Einstein Lounge, Harnack Haus</i>	20:00 - 21:30

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Mon 29/07

09:00	<b>FHI FEL Upgrade</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Wieland Schöllkopf</i> 09:00 - 09:40
	<b>FHI FEL Simulations</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Bill Colson</i> 09:40 - 10:10
10:00	<b>Experience from 10 years of operating</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Sandy Gewinner</i> 10:10 - 10:30
	<b>Coffee Break</b> <i>Harnack Haus</i>	10:30 - 11:00
11:00	<b>TITLE TBD (about 2-color experiments in solids)</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Nils Dessmann</i> 11:00 - 11:35
	<b>IR FEL microscopy and planned 2-color experiments</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Alex Paarmann</i> 11:35 - 12:10
12:00	<b>The rise and fall of surface action spectroscopy</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Helmut Kühlenbeck</i> 12:10 - 12:45
	<b>Group Foto</b> <i>Harnack Haus</i>	12:55 - 13:00
13:00	<b>Lunch</b> <i>Restaurant, Harnack-Haus</i>	13:00 - 14:00
14:00	<b>Overview of Waterloo IR FEL Facility</b> <i>Hahn Lecture Hall, Harnack-Haus</i>	<i>Scott Hopkins</i> 14:15 - 14:50
	<b>Overview of CLIO FEL and IRMPD spectroscopy platform upgrade</b> <i>Hahn Lecture Hall, Harnack-Haus</i>	<i>Debora Scuderi</i> 14:50 - 15:25
15:00	<b>Polfel – a THz superradiant source, the status of realisation</b> <i>Hahn Lecture Hall, Harnack-Haus</i>	<i>Robert Nietubyć</i> 15:25 - 16:00

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16:00	<b>Coffee Break</b> <i>Harnack Haus</i>	16:00 - 16:30
	<b>Overview of the FHI FEL Linac System Engineering Design</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>John Rathke</i> 16:30 - 17:00
17:00	<b>FELIX control system</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Victor Claessen</i> 17:00 - 17:30
	<b>RF Technologies for IR FEL's</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Marco De Pas</i> 17:30 - 18:00
18:00	<b>EPICS control system for IR FEL's</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Heinz Junkes</i> 18:00 - 18:30
19:00	<b>Dinner</b> <i>Restaurant, Harnack Haus</i>	19:00 - 20:00
20:00	<b>Get Together</b>	
21:00	<i>Einstein Lounge, Harnack Haus</i>	20:00 - 21:30

# Infrared Free Electron Lasers: The State of the Art 2024

Tue 30/07

09:00	<b>Dresden Advanced Light Infrastructure (DALI) - conceptual facility design</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Ulf Lehnert</i> 09:00 - 09:30
	<b>High-power single-pass THz FEL in operation at PITZ: first characterization</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Mikhail Krasilnikov</i> 09:30 - 10:00
10:00	<b>Wavelength tuning in linac-driven waveguide FELs</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Lex van der Meer</i> 10:00 - 10:30
	<b>Coffee Break</b> <i>Harnack Haus</i>	10:30 - 11:00
11:00	<b>Laser induced switching of ferroic order</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Daniel Lourens et al.</i> 11:00 - 11:30
	<b>Infrared spectro-microscopy of liquid-liquid interfaces</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Giulia Carini</i> 11:30 - 11:55
12:00	<b>Insights on Metal Oxide Clusters and Chiral Recognition by Cryogenic Ion Trap Vibrational Spectroscopy</b> <i>Francine Horn et al.</i>	
	<b>Perspectives of 2-Color FEL Experiments in Helium Nanodroplets</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>America Torres</i> 12:20 - 12:45
13:00	<b>Lunch</b> <i>Restaurant, Harnack-Haus</i>	13:00 - 14:00
14:00	<b>FELIX-2 upgrade &amp; small molecule identification for Police</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Giel Berden</i> 14:15 - 14:50
15:00	<b>Univ. Waterloo research in collaboration with FELIX</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Christian Ieritano</i> 14:50 - 15:25
	<b>Far infrared spectroscopy of clusters of PAHs in the gas-phase</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Piero Ferrari Ramirez</i> 15:25 - 16:00

# Infrared Free Electron Lasers: The State of the Art 2024

Tue 30/07

16:00	<b>Coffee Break</b> <i>Harnack Haus</i>	16:00 - 16:30
	<b>Infrared and UV-Visible Spectroscopy of Organometallic Ions</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Michael Duncan</i> 16:30 - 17:15
17:00	<b>IR-FEL Studies of Activation at Metal Clusters</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Christian Haakansson</i> 17:15 - 17:45
	<b>Open Questions Concerning the FEL IRMPD Dynamics of Metal Cluster Carbonyl Complexes</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>David Rayner</i> 17:45 - 18:15
18:00		
19:00	<b>Dinner</b> <i>Restaurant, Harnack Haus</i>	19:00 - 20:00
20:00	<b>Get Together</b> <i>Einstein Lounge, Harnack Haus</i>	20:00 - 21:30
21:00		

# Infrared Free Electron Lasers: The State of the Art 2024

Wed 31/07

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09:00	<b>Electron diffraction experiments at University of Waterloo</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Germán Sciaini</i> 09:00 - 09:35
10:00	<b>The ELBE THz Sources: Tunable Coherent THz for Ultrafast Spectroscopy of Nonequilibrium and Nonlinear Dynamics</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Michael Klotz</i> 09:35 - 10:10
	<b>Revolutionizing IR and THz Spectroscopy: The Ultimate Broadband Miniature FTIR Spectrometer</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Ekaterina Zapolnova</i> 10:10 - 10:30
	<b>Coffee Break</b> <i>Harnack Haus</i>	10:30 - 11:00
11:00	<b>Pushing the Limits of Laser Spectroscopy: From Ultrafast Nanoplasmonics to Ultrasensitive Health Diagnostics</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>David Nesbitt</i> 11:00 - 11:45
12:00	<b>Protons in molecules and how to annoy theoreticians (or not) with free-electron lasers</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Bruno Martinez-Haya</i> 11:45 - 12:15
	<b>Gas-phase ion spectroscopy using IR FEL radiation</b> <i>Hahn Lecture Hall, Harnack Haus</i>	<i>Gert von Helden</i> 12:15 - 12:45
13:00	<b>Lunch</b> <i>Restaurant, Harnack-Haus</i>	13:00 - 14:00
14:00	<b>Lab Tour at FHI</b> <i>FEL-Building and Building E, Fritz-Haber-Institut</i>	<i>Alex Paarmann, André Fielicke, Gert von Helden, Knut Asmis, Marco De Pas, Sandy Gewinner, Wieland Schöllkopf</i> 14:30 - 18:00
18:00		
19:00	<b>Dinner: Post workshop dinner for those who are interested; Location TBD</b>	19:00 - 21:00