

SATELLITE WORKSHOP - Photon Science



Light-Matter Interaction: Recent Advances in Theory

Thursday, 26 January 2017

CFEL Bldg. 99, Seminar Room 2

The workshop aims at presenting recent advances in theoretical research on light-matter interactions. Six invited experts will report on the research highlights covering a broad spectrum of scientific interests ranging from atomic and molecular physics through condensed matter to warm-dense-matter and plasma research. Outline of future developments will be discussed in connection with recent experimental achievements.

Organisers: Beata Ziaja-Motyka (Executive) ,
Sang-Kil Son, Robin Santra

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PROGRAMME

	Session 1		<i>Chair: Sang-Kil Son</i>
14:00	Welcome adress	Robin Santra	(CFEL, DESY)
14:15	Theoretical treatment of molecules in ultrashort intense laser pulses: from molecular hydrogen to ammonia.	Alejandro Saenz	(Humboldt Univ., Germany)
14:45	High-intensity x-ray induced radiation damage in proteins.	Stefan Hau-Riege	(LLNL, USA)
15:15	Modeling of X-ray induced non-equilibrium dynamics of matter.	Zoltan Jurek	(CFEL, DESY)
15:45	Coffee break		
	Session 2		<i>Chair: Beata Ziaja-Motyka</i>
16:15	Simulating Thomson scattering from non-equilibrium plasmas.	Thomas Bornath	(Rostock Univ., Germany)
16:45	Recent developments in Time-Dependent Density Functional Theory of warm dense matter.	Andrew D. Baczewski	(Sandia Nat. Lab., USA)
17:15	Structural analysis by X-ray intensity angular cross correlations.	Ruslan Kurta	(European XFEL)
17:45	Closing remarks	Beata Ziaja	(CFEL, DESY)
17:55	End of meeting		