



## Light-Matter Interaction: Recent Advances in Theory

Thursday, 30 January 2019

CFEL, SemR V, Bldg. 99

The meeting will comprise 6 talks on the respective theory advances in atomic, molecular, solid state physics, warm-dense-matter and plasma research. Participation will be open to all interested users of photon science facilities, attending the EuXFEL and DESY Photon Science Users' Meetings.

Organisers: Beata Ziaja-Motyka (Executive), Sang-Kil Son, Ralph Welsch & Robin Santra (CFEL-DESY Theory Group)

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### PROGRAMME

14:00	'Welcome Address'	Beata Ziaja-Motyka	CFEL, DESY Hamburg
14:15	'Strong-field control in the XUV domain'	Ulf Saalman	MPIPKS, Dresden
14:45	'Polaritonic chemistry and materials: changing properties of matter by engineering the photon vacuum'	Michael Ruggenthaler	CFEL, MPSD, Hamburg
15:15	'Electron decay mediated charge redistribution in clusters'	Kirill Gokhberg	Univ. of Heidelberg
15:45	<b>Coffee break (30 Min.)</b>		
16:15	<b>Session 2 (Chairman: Ralph Welsch, CFEL, DESY)</b>		
16:15	'Free electron degeneracy in collisional-radiative simulations'	Howard Scott	LLNL, USA
16:45	'Essentially Exact Molecular Dynamics with Quantum Chemistry and Machine Learning'	Alexandre Tkatchenko	Univ. du Luxembourg
17:15	'New insights into nonlinear optical response with x-rays'	Daria Gorelova	CFEL, DESY, Hamburg
	'Closing Remarks'		& Univ. of Hamburg
17:45		Robin Santra	CFEL, DESY Hamburg
18:00	<b>End of the workshop</b>		