

PI - Seminar

Schloss Rauischholzhausen November 19 – 20, 2015



Scientific Program

Thursday, 19 November 2015



Welcome

08:50 – 09:00 Ulrich Höfer Opening Remarks

Session I (Chair: Michael Gottfried)

09:50 – 09:30	Wolfgang Stolz A1 - Metal organic vapour phase epitaxy of semiconductor heterostructures and interfaces	
09:30 – 10:00	Gregor Witte A2 - Inorganic/organic and organic/organic interfaces: structure and charge transport	
10:00 – 10:30	Peter Jakob A3 - Organic heterolayer interfaces: structure and vibrational excitations	
10:30 – 11:00	Coffee Break and Check In	

Session II (Chair: Gregor Witte)

11:00 – 11:30	Michael Gottfried A4 - Reactivity, energetics and structure of buried organic/metal interfaces
11:30 – 12:00	Kerstin Volz A5 - Atomically resolved structure of solid/solid interfaces
12:00 – 12:30	Ralf Tonner A6 - Unified density functional description of bonding and interactions at inorganic/organic interfaces

12:30 – 14:30 Lunch Break

Thursday, 19 November 2015 (continued)



Session III (Chair: Wolfgang Stolz)

14:30 – 15:00	Jörg Sundermeyer A7 - Functional design and synthesis of metal organic chromophores for heterojunction interfaces	
15:00 – 15:30	Niels Münster A8 - Organic molecular building blocks for the synthesis of internal interfaces	
15:30 – 16:00	Stefanie Dehnen A9 - Synthesis and properties of molecular inorganic/organic/inorganic multilayer clusters	

16:00 - 16:30 Coffee Break

Session IV (Chair: Stephan W Koch)

20:00 – 21:00 Mitgliederversammlung

16:30 – 17:00	Wolfram Heimbrodt B1 - Optical spectroscopy at internal interfaces – semiconductor heterostructures and organic-inorganic hybrids
17:00 – 17:30	Sangam Chatterjee B2 - Ultrafast spectroscopy and control of excitations across internal interfaces
17:30 – 18:00	Heinz Jänsch Ö – Public Relations Project
18:30 – 19:30	Dinner

Friday, 20 November 2015



07:30 – 08:30 Breakfast and Check Out

Session V (Chair: Kerstin Volz)

09:00 - 09:30	Martin Koch B3 - THz- and time-resolved optical spectroscopy on buried interfaces	
09:30 – 10:00	Mackillo Kira B4 - Microscopic theory of optical excitations in interface-dominated material systems	
09:50 – 10:10	Ulrich Höfer B5 - Time-resolved nonlinear optical spectroscopy at buried semiconductor interfaces	

10:30 - 11:00 Coffee Break

Session VI (Chair: Martin Koch)

11:00 – 11:30	Ulrich Höfer B6 - Time-resolved two-photon photoemission studies of interface electron and exciton dynamics
11:30 – 12:00	Wolfgang Stolz B7 - Interface-dominated semiconductor laser structures
11:50 – 12:10	Robert Berger B8 - Quantum chemistry for molecular vibrational and electronic transitions at organic interfaces

12:30 – 13:30 Lunch Break

Friday, 20 November 2015 (continued)



Session VII (Chair: Ulrich Höfer)

13:30 – 13:45	Daniel Sanchez-Portal GP1 - Electron dynamics at organic/inorganic interfaces from first principles		
13:45 – 14:00	Michael Dürr Building well-defined inorganic-organic interfaces on silicon surfaces		
14:00 – 14:15	Johanna Heine Halogenidometalate based hybrid materials		
14:15 – 14:30	Tobias Breuer Determination of charge transport through internal interfaces in thin films and heterostructures		
14:30 – 14:45	Arash Rahimi-Iman Optical spectroscopy on heterostructures involving 2D materials		
14:45 – 15:00	Gerson Mette <i>Time-resolved investigations at van-der-Waals coupled 2D materials by means</i> <i>of nonlinear optical spectroscopy</i>		
15:00 – 15:30	Coffee Break		

15:30 – 17:00 **Meeting of the Managing Board** *U Höfer, SW Koch, U Koert, K Volz, G Witte*



Overview: PI-Seminar, November 19 – 20, 2015 Schloss Rauischholzhausen, Weißer Saal

	Thursday	Friday
07:30 - 08:30	Arrival	Breakfast
08:30		
08:45	Opening Remarks	
09:00		
09:15	Session I (Michael Gottfried)	Session V (Kerstin Volz)
09:30	Wolfgang Stolz	Martin Koch
09:45	Gregor Witte	Mackillo Kira
10:00		
10:15		
10:30 - 11:00	Coffee Break	Coffee Break
11:00		
11:15	Session II (Gregor Witte)	Session VI (Martin Koch)
11:45	Kerstin Volz	Wolfgang Stolz
12:00	Ralf Tonner	Robert Berger
12:15		
12:30 - 13:30	Lunch Break	Lunch Break
13:30		Session VII (Ulrich Höfer)
13:45		Ulrich Höfer
14:00		Michael Dürr
14:15		Tobias Breuer
14:30		Arash Rahimi-Iman Gerson Mette
14:45	Session III (Wolfgang Stolz)	
15:00	Jörg Sundermeyer	Coffee Break
15:15	Niels Münster Stefanie Dehnen	
15:30		Mosting of the Managing Read
15:45		Ulrich Höfer
16:00	Coffee Break	Stephan W Koch
16:15		Kerstin Volz
16:30		Gregor Witte
16:45	Session IV (Stephan W Koch)	
17:00	Wolfram Heimbrodt Sangam Chatterjee Heinz Jänsch	
17:15		
17:45		
18:00		
18:15		
18:30 -		
19:30	Dinner	
19:30		
19:45		
20:00 – 21:00	Mitgliederversammlung	



Conference Venue Schloss Rauischholzhausen

Schloss Rauischholzhausen is considered the most attractive estate of Justus-Liebig-Universität Giessen. Conferences, workshops, seminars and festivities are held here on a regular basis. Due to its proximity to Marburg it is also frequently booked for events organized by Philipps-Universität Marburg.

The property was first mentioned in a charter book of the monastery of Fulda between 750 and 779 and was initially a fief of the Lords of Eppstein until the Archbishop of Mainz acquired it completely in 1369. From then on the vassals called themselves Lords Rau of Holzhausen, one of the knights on the eastern bank of the Rhine.

The last member of the Rau family served as an officer in the Hessian army. When Hesse-Kassel became part of Prussia he refused to join the Prussian army and sold all his property to the ambassador's delegate, Stumm.



The new owner, Ferdinand Stumm, was a member of a famous family of industrialists. He became imperial ambassador in Madrid and was ennobled by Kaiser Friedrich in 1888. Many famous lords, earls, and dukes were his guests, among others Kaiser Friedrich and the Duke of Hesse.

He resigned as an envoy in 1890 and died in 1925, which left him 35 years to take care of the castle and its park. His eldest son, Ferdinand von Stumm, inherited the castle and sold the complete Holzhausen property in 1937. The castle was bought by the Kerkhoff Foundation in Bad Nauheim and

then leased to the University of Giessen as a site for experiments in agriculture.

The forest was sold to Mr. von Waldhausen, while the castle and the adjacent park were made available to the public. A school was founded in the castle for the training of kindergarten teachers.

After having been confiscated as Nazi property by the Allied forces in 1945, the castle and the park became property of the state of Hesse and were put at the disposal of Justus Liebig University Giessen as a conference centre.

The castle of Rauischholzhausen was designed by the architect Carl Schaefer, a student of Gottlieb Ungewitter, in the style of Klein-Potsdam. The construction lasted from 1871 to 1878 and the castle was lavishly decorated. In 1873 the building collapsed, because the foundations had been badly laid. Carl Jonas Mylius and Alfred Friedrich Bluntschli, both students of the architect Semper, were commissioned to redesign the castle according to Schaefer's original concept. In 1875, construction of the roof and the south-east wing was completed. The main building, reminiscent of an English manor house, was finished a year later. In 1878 the half-timbered wing of the building was completed.

When Rau von Holzhausen first lived on the location of today's castle he stayed at the castle mill, which is located at the lower entrance to the park and was built in the 16th century. In today's pond there was a water castle which could be approached through the large portal which still adorns the atrium of the castle. The door frame is decorated by a lion's head with a ring in its mouth and the lonic columns may be identified as belonging to the Renaissance style.

The park is designed in the English style and contains almost three hundred different types of trees. Two creeks run through the park and form several ponds connected by artificial cascading waterfalls. Sculptures including a Lithuanian princess, a female slave, a virgin, and a weary rambler may be found between groups of trees.

Collaborative Research Centre SFB 1083



Principle Investigators

PD Dr. Sangam Chatterjee Prof. Dr. Stefanie Dehnen Prof. Dr. Pedro M. Echenique Prof. Dr. Michael Gottfried Dr. Katharina Ines Gries Prof. Dr. Wolfram Heimbrodt Prof. Dr. Ulrich Höfer Prof. Dr. Peter Jakob Prof. Dr. Heinz J. Jänsch Prof. Dr. Mackillo Kira Prof. Dr. Martin Koch Prof. Dr. Stephan W. Koch Prof. Dr. Ulrich Koert Dr. Daniel Sánchez-Portal Dr. Wolfgang Stolz Prof. Dr. Jörg Sundermeyer Dr. Ralf Tonner Prof. Dr. Kerstin Volz Prof. Dr. Gregor Witte

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Guests

Dr. Tobias Breuer Prof. Dr. Michael Dürr Dr. Johanna Heine Dr. Gerson Mette Dr. Arash Rahimi-Iman Dr. Martin Schmid Department of Physics Institute of Applied Physics, Gießen Department of Chemistry Department of Physics Department of Physics Department of Chemistry





