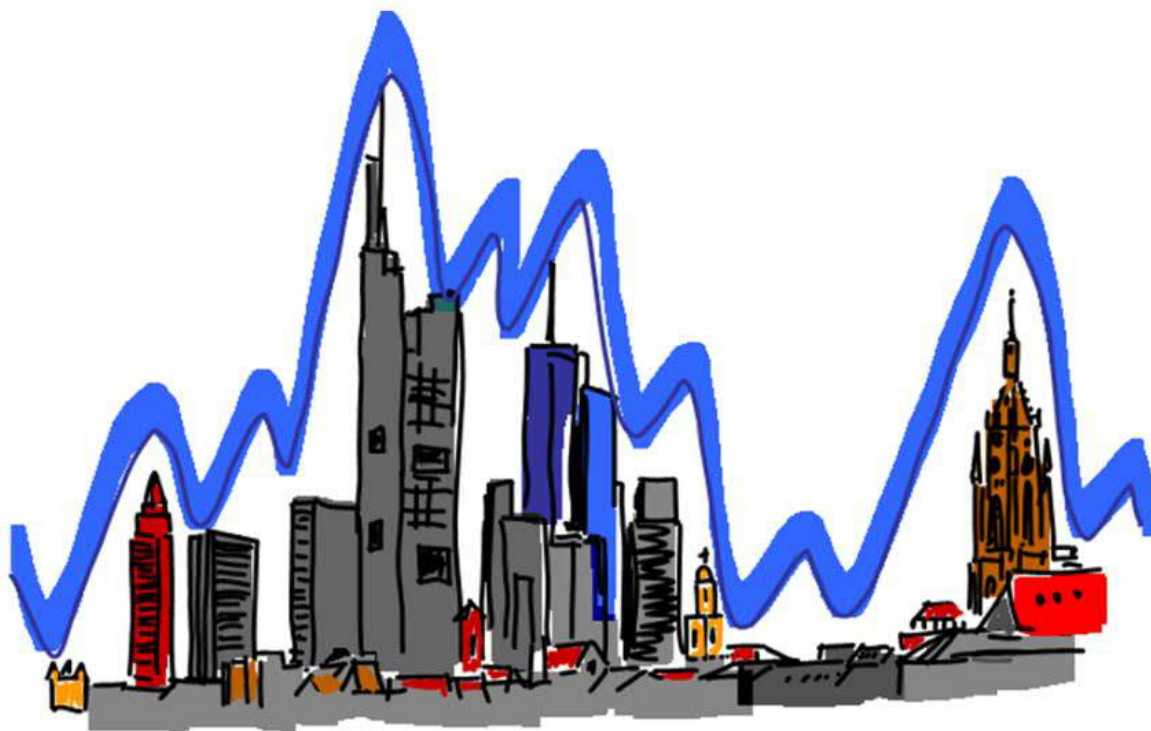




## SPP1601 YOUNG RESEARCHERS' WORKSHOP 2018

7<sup>th</sup> – 9<sup>th</sup> May 2018, Schmitten



### ORGANIZING COMMITTEE

Alberto Collauto (*Goethe-Universität Frankfurt am Main*)

Benesh Joseph (*Goethe-Universität Frankfurt am Main*)

### SECRETARIAT

Silke Schneider (*Goethe-Universität Frankfurt am Main*)






## BOOK OF ABSTRACTS



**DFG** Deutsche  
Forschungsgemeinschaft

## Programme

	Monday 07.05	Tuesday 08.05	Wednesday 09.05
07:30 – 08:00			
08:00 – 08:30		Breakfast	Breakfast
08:30 – 09:00			
09:00 – 09:30		Bode	Corzilius
09:30 – 10:00			
10:00 – 10:30		Coffee break	Coffee break
10:30 – 11:00		Hetzke	
11:00 – 11:30		Pribitzer	Glaubitz
11:30 – 12:00		Saeidpour	Chu
12:00 – 12:30			Künstner
12:30 – 13:00	Lunch	Lunch	
13:00 – 13:30			Lunch
13:30 – 14:00		Goovaerts	
14:00 – 14:30	Schnegg		Kulikov
14:30 – 15:00		Auth	Weichselbaumer
15:00 – 15:30	Biktagirov	Bunzmann	Coffee break
15:30 – 16:00	Möser	Coffee break	Kultaeva
16:00 – 16:30	Coffee break	Kaindl	Lohmiller
16:30 – 17:00	Lopez	Ronneburg	
17:00 – 17:30			
17:30 – 18:00	Poster session	Poster session	
18:00 – 18:30			
18:30 – 19:00		Dinner	
19:00 – 19:30	Dinner		
19:30 – 20:00		Prisner	
20:00 – 20:30			

	Mealtimes
	Plenary lectures (60' = 45' + 15' discussion)
	Student talks (30' = 20' + 10' discussion)
	Poster sessions (90')
	Career workshop sessions (60' = 45' + 15' discussion)

## List of the oral contributions

### Monday 7<sup>th</sup> May

Alexander <b>Schnegg</b>	Magneto-Structural Correlations of High-Spin Cobalt States	p. 5
Timur <b>Biktagirov</b>	Toward all-electron accuracy of spin-spin zero-field splitting calculation in periodic systems	p. 7
Jannik <b>Möser</b>	Spin-dependent transport via triplet excitons in amorphous silicon	p. 9
Jakob <b>Lopez</b>	Career Opportunities for Spectroscopists in Industry	

### Tuesday 8<sup>th</sup> May

Bela <b>Bode</b>	Monitoring Multimers and Multimersiation by Pulse Dipolar EPR	p. 11
Thilo <b>Hetzke</b>	2D-correlated hyperfine spectroscopy on binary Mn <sup>2+</sup> complexes at Q-band frequencies	p. 13
Stephan <b>Pribitzer</b>	Two-dimensional distance correlation maps from pulsed triple electron resonance (TRIER) on proteins	p. 15
Siavash <b>Saeidpour</b>	Investigation of the nanocarriers as drug delivery system by dual-frequency EPR spectroscopy	p. 17
Etienne <b>Goovaerts</b>	Optically- and electrically-detected magnetic resonance of charge excitations in organic solar cell materials	p. 19
Michael <b>Auth</b>	Direct Determination of Chemical Doping Concentrations in 6,5- Single-Wall Carbon Nanotubes	p. 21
Nikolai <b>Bunzmann</b>	Intra- and Intermolecular TADF emission investigated by magnetic resonance methods	p. 23

<b>Maximilian Kaindl</b>	EPR imaging at the nanoscale with NV centers in diamond	<i>p. 25</i>
<b>Hendrik Ronneburg</b>	Reactivity of point defects in thin, single crystalline SiO <sub>2</sub> films towards water – An EPR study under ultrahigh vacuum conditions	<i>p. 27</i>
<b>Thomas Prisner</b>	Career Pathways for Academics	

Wednesday 9<sup>th</sup> May

<b>Björn Corzilius</b>	Dynamic nuclear polarization using endogenous metal ions	<i>p. 29</i>
<b>Clemens Glaubitz</b>	Solid-state NMR and Dynamic Nuclear Polarization in Membrane Protein Research	<i>p. 31</i>
<b>Anh Chu</b>	GG/s Rapid-scan Electron Spin Resonance Detection enabled by on-chip LC-tank Voltage-controlled Oscillator	<i>p. 33</i>
<b>Silvio Künstner</b>	Electron paramagnetic resonance on a chip (EPRoC)	<i>p. 35</i>
<b>Iliia Kulikov</b>	Development of a Sensitive Setup for Measuring the Hall Effect in low-Mobility Materials	<i>p. 37</i>
<b>Stefan Weichselbaumer</b>	Superconducting Microwave Resonators for Magnetic Resonance	<i>p. 39</i>
<b>Anastasia Kultaeva</b>	EPR study of cupric ions in the porous coordination polymers Cu <sub>2.931</sub> Zn <sub>0.069</sub> (btc) <sub>2</sub> and Cu(btc) <sub>2</sub>	<i>p. 41</i>
<b>Thomas Lohmiller</b>	Pulse EPR and Hyperfine Spectroscopy on Carbenes and Nitrenes: Light and Temperature Control of the Spin State, H Tunneling and High-Temperature Stability	<i>p. 43</i>

## List of the posters

P1	Tarek <b>Al Said</b>	Development of an experimental setup for detecting light-induced magnetization using force microscopy methods	<i>p. 47</i>
P2	Tufa <b>Assafa</b>	Orthogonal labelling strategies to study protein interaction networks	<i>p. 48</i>
P3	Michael <b>Auth</b>	Direct Determination of Chemical Doping Concentrations in 6,5-Single-Wall Carbon Nanotubes	<i>p. 49</i>
P4	Isabel <b>Bejenke</b>	Cross-polarization edited ENDOR on $^2\text{H}$ nuclei in protein radicals	<i>p. 50</i>
P5	Alexandr <b>Colbasevici</b>	Conformational study of NpSRII/NpHtrII in different lipid nanoparticles using DEER, MMM and MtssIWizard	<i>p. 51</i>
P6	Fabian <b>Hecker</b>	Comparison of cross-polarization ENDOR at different frequencies	<i>p. 52</i>
P7	Henrik <b>Hintz</b>	Nitroxide Labeled Model Compounds for EPR-Based Distance Determination	<i>p. 53</i>
P8	Jean Jacques <b>Jassoy</b>	Spin Labeling of Proteins with Trityl Radicals	<i>p. 54</i>
P9	Yury <b>Kutin</b>	Stabilization of an oxygen activation intermediate of the Mn/Fe cofactor in R2lox by a point mutation	<i>p. 55</i>
P10	Samuel <b>Lenz</b>	Spin dynamics of potential molecular qubits in thin films	<i>p. 56</i>
P11	Dennis <b>Schäfter</b>	Potential 2-Qubit Systems with Adamantane- and Cyclobutane-based Bridging Ligands	<i>p. 57</i>
P12	Stefanie <b>Schrottke</b>	Studying structural features of the Rhodopsin guanylyl cyclase using electron paramagnetic spectroscopy	<i>p. 58</i>

- P13 Magdalena **Schumacher** Conformational changes of Channelrhodopsin-2 investigated by time-resolved EPR spectroscopy *p. 59*
- P14 Simen **Sopp** Towards single-molecule EPR *p. 60*