

Program

Sunday, 26 September 2021

16:00 – 21:00 Registration

from 18:00 *BUFFET SUPPER / Informal get together*

19:30 – 22:00 **discussions**

Monday, 27 September 2021

07:45 – 08:45 *BREAKFAST*

08:45 – 09:00	Scientific organizers	Welcome and Organization
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Session I: Chair: Leonid Krivitsky

09:00 – 09:35	Roman Schnabel T1	Squeezed light – now exploited by all gravitational-wave observatories
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09:35 – 10:10	Frank Schlawin T2	Quantum metrology of two-photon absorption
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10:10 – 10:45	Ulrik L. Andersen T3	Optical quantum sensing beyond the NOON state limit
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10:50 – 11:20 *COFFEE BREAK* / **discussion**

Session I: Chair: Roman Schnabel

11:20 – 11:55	Marco Genovese T4	New applications of twin beams as a quantum tool: from quantum reading to quantum conformance test
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11:55 – 12:30	Milena D'Angelo T5	Toward quantum 3D imaging devices
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12:30 LUNCH

Program

Monday, 27 September 2021

Session II: Chair: Ulrik Andersen

14:00 – 14:35	Marco Barbieri T15 (online)	Semiparametric estimation in Hong-Ou-Mandel interferometry
14:35 – 14:55	Juan Villabona-Monsalve C1 (online)	Quantum Light for Sensing of Organic and Biological Materials
14:55 – 15:15	Dmitry Tabakaev C2 (online)	Spatial properties of entangled two-photon absorption
15:20 – 15:50	<i>COFFEE BREAK</i> / discussion	
15:50 – 16:50	Poster Flash Chair: Sven Ramelow	
16:50 – 18:30	Online Poster session I	
18:30	<i>DINNER</i>	
19:30 – 22:00	discussions	

Program

Tuesday, 28 September 2021

08:00 *BREAKFAST*

Session III: Chair: Marco Genovese

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| 09:00 – 09:35 | Jeff Ou
T7 (online) | Unbalanced Interferometers for Sensing |
| 09:35 – 10:10 | Shigeki Takeuchi
T8 (online) | Efficient entangled photon sources and their applications |
| 10:10 – 10:45 | Leonid Krivitskiy
T9 | Broadband diffraction of correlated photons from crystal superlattices |
| 10:50 – 11:20 | <i>COFFEE BREAK / discussion</i> | |

Session III: Chair: Joachim von Zanthier

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| 11:20 – 11:55 | Maria Chekhova
T10 | Biphotons from Ultrathin Sources |
| 11:55 – 12:30 | Galiya Kitaeva
T11 (online) | Quantum correlated optical - terahertz biphotons: study and possible applications |
| 12:30 – 12:40 | Conference Photo (in front of the Physikzentrum/Main entrance) | |
| 12:40 | <i>LUNCH</i> | |

Session IV: Chair: Milena D'Angelo

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| 14:00 – 14:20 | Chiara Lindner
C3 | Quantum Fourier-transform Infrared Spectroscopy |
| 14:20 – 14:40 | Helen Chrzanowski
C4 (online) | Mid-Infrared Microscopy via Position Correlations of Undetected Photons |
| 14:40 – 14:50 | <i>SHORT BREAK</i> | |

Program

Tuesday, 28 September 2021

14:50 – 15:10	Elkin Santos C5	Near-Field Subdiffraction Resolution Quantum Imaging with Undetected Photons
15:10 – 15:30	Andrei Nomerotski C6 (online)	Quantum-assisted optical telescopes
15:30 – 16:00	<i>COFFEE BREAK / discussion</i>	
16:00 – 17:30	Online Poster session II	
17:30 – 18:30	Poster prize jury	
18:30	<i>HERAEUS DINNER at the Physikzentrum (cold & warm buffet, with complimentary drinks)</i>	

Program

Wednesday, 29 September 2021

08:00 *BREAKFAST*

Session V: Chair: Frank Schlawin

09:00 – 09:35	Xiaoying Li T14 (online)	Quantum Interference Recovered by Broadband Amplitude Measurement in an Unbalanced SU(1,1) Interferometer
09:35 – 10:10	Alfred U'Ren T6	Towards Practical Quantum Optical Coherence Tomography
10:10 – 10:45	Robert Fickler T16 (online)	Twisted NOON States for Angular Super-Resolution
10:50 – 11:20	<i>COFFEE BREAK / discussion</i>	

Session V: Chair: Roman Schnabel

11:20 – 11:55	Joachim von Zanthier T13	Quantum imaging with incoherently scattered light
11:55 – 12:30	Dan Oron T14 (online)	Heralded spectroscopy reveals exciton-exciton correlations in single colloidal nanocrystals
12:30 – 12:40	Scientific organizers	Closing remarks and poster awards
12:40 – 14:00	<i>LUNCH</i>	

End of Seminar / Departure