

## AGENDA

\*All times are Central Europe Time (CEST) (for speakers in time zones other than CEST we indicate the local time in brackets)

TIME	PRESENTATION TITLE	SPEAKER	
<b>Monday, September 13 2021</b>			
14:45-15:00	<i>Welcome &amp; Opening Remarks</i>		
15:00-16:00 (09:00)	<b>Tutorial/Plenary:</b> QED in Astrophysics	<b>Alexander Philippov</b> (Flatiron Institute, Center for Computational Astrophysics (CCA))	<b>Session Chair:</b> <b>Felix Karbstein</b>
16:00-16:25	Threshold effects in electron-positron pair creation from the vacuum	<b>Katarzyna Krajewska</b> (University of Warsaw)	
16:30-16:55 (15:30)	Higher fidelity benchmarking of the nonlinear Compton and Breit-Wheeler processes in a laser pulse	<b>Ben King</b> (University of Plymouth)	
17:00-18:00	<i>REMO</i>		
18:00-18:25	Towards the measurement of the quantum-vacuum Lagrangian coupling coefficients using two counterpropagating super-intense laser pulses	<b>Luis Roso</b> (CLPU, Centro de Láseres Pulsados)	<b>Session Chair:</b> <b>Stuart Mangles</b>
18:30-18:55 (17:30)	Positrons - from creation to acceleration	<b>Marija Vranic</b> (Instituto Superior Técnico, University of Lisbon)	
19:00-19:25 (10:00)	Laser-Particle collider for high-energy high-intensity physics studies	<b>Stephan Bulanov</b> (Lawrence Berkeley National Laboratory)	
19:30-19:55 (13:30)	Status of International Ultra-Intense Laser-Based Science: the Multi-Petawatt Physics Prioritization (MP3) workshop	<b>Jonathan Zuegel</b> (University of Rochester/ Laboratory for Laser Energetics)	
20:00-21:30	<i>REMO: After Hours</i>		
<b>Tuesday, September 14 2021</b>			
09:00-09:25 (16:00)	All-optical nonlinear Compton scattering experiments using a 4 PW laser system	<b>Calin Højbota</b> (Center for Relativistic Laser Science, Institute for Basic Science, Rep. of Korea)	<b>Session Chair:</b> <b>Christopher Ridgers</b>
09:30-09:55 (15:30)	Spin polarization effects of particles in ultraintense laser fields	<b>Jian-Xing Li</b> (School of Physics, Xi'an Jiaotong University, China)	
10:00-10:25	Breit-Wheeler pair production by high-energy bremsstrahlung and intense laser radiation	<b>Alina Golub</b> (Heinrich-Heine-University Duesseldorf)	
10:30-10:55	FOR2783: Probing pair production in the non-perturbative regime	<b>Felipe Cezar Salgado</b> (Helmholtz Institute Jena)	
11:00-12:30	<i>REMO Poster Session</i>	<b>Óscar Amaro</b> (Poster No. 1)   <b>Robin Ekman</b> (Poster No. 3)   <b>Evgeny Gelfer</b> (Poster No. 4)   <b>Prokopis Hadjisolomou</b> (Poster No. 5)   <b>Harsh Harsh</b> (Poster No. 6)   <b>Tae Moon Jeong</b> (Poster No. 7)   <b>Martin Jirka</b> (Poster No. 8)   <b>Yeong Gyu Kim</b> (Poster No. 9)   <b>Leonhard Klar</b> (Poster No. 10)   <b>Christian Kohlfürst</b> (Poster No. 11)   <b>Bifeng Lei</b> (Poster No. 12)   <b>Eva Los</b> (Poster No. 14)   <b>Qingzheng Lyu</b> (Poster No. 15)   <b>Bertrand Martinez</b> (Poster No. 16)   <b>Arseny Mironov</b> (Poster No. 17)   <b>Ricardo Oude Weernink</b> (Poster No. 18)   <b>Vishwa Bandhu Pathak</b> (Poster No. 19)   <b>Antonin Sainte-Marie</b> (Poster No. 21)   <b>Abhijit P. Sarode</b> (Poster No. 22)   <b>Ralf Schuetzhold</b> (Poster No. 23)   <b>Manoranjan Singh</b> (Poster No. 25)   <b>Suo Tang</b> (Poster No. 26)   <b>Thomas Teter</b> (Poster No. 27)	
12:30-13:30	<b>Tutorial/Plenary:</b> How do simulations of intense laser-matter interactions work?	<b>Tom Blackburn</b> (University of Gothenburg)	<b>Session Chair:</b>
13:30-13:55	Impact of the laser spatio-temporal shape on Breit-Wheeler pair production	<b>Caterina Riconda</b> (LULI Sorbonne University)	<b>Daniel Seipt</b>
14:00 - 15:30	<i>REMO: After Hours</i>		

**Wednesday, September 15 2021**

15:00-15:25	Overview of the LUXE experiment and its physics case	<b>Beate Heinemann</b> (DESY and University of Freiburg)	<b>Session Chair:</b>
15:30-15:55 (16:30)	The detector system in LUXE	<b>Noam Tal Hod</b> (Weizmann Institute of Science)	<b>Caterina Riconda</b>
16:00-17:30	<i>REMO Poster Session</i>	<b>Óscar Amaro</b> (Poster No. 1)   <b>Viktor Banda</b> (Poster No. 2)   <b>Robin Ekman</b> (Poster No. 3)   <b>Evgeny Gelfer</b> (Poster No. 4)   <b>Prokopis Hadjisolomou</b> (Poster No. 5)   <b>Harsh Harsh</b> (Poster No. 6)   <b>Tae Moon Jeong</b> (Poster No. 7)   <b>Martin Jirka</b> (Poster No. 8)   <b>Leonhard Klar</b> (Poster No. 10)   <b>Christian Kohlfürst</b> (Poster No. 11)   <b>Bifeng Lei</b> (Poster No. 12)   <b>Misha Arturo Lopez Lopez</b> (Poster No. 13)   <b>Eva Los</b> (Poster No. 14)   <b>Qingzheng Lyu</b> (Poster No. 15)   <b>Bertrand Martinez</b> (Poster No. 16)   <b>Arseny Mironov</b> (Poster No. 17)   <b>Ricardo Oude Weernink</b> (Poster No. 18)   <b>Hans Rinderknecht</b> (Poster No. 20)   <b>Antonin Sainte-Marie</b> (Poster No. 21)   <b>Ralf Schuetzhold</b> (Poster No. 23)   <b>Yuan Shi</b> (Poster No. 24)   <b>Thomas Teter</b> (Poster No. 27)   <b>I-Lin Yeh</b> (Poster No. 28)	
17:30-18:30 (08:30)	<b>Tutorial/Plenary:</b> From Theory to Experiment: Challenges and Opportunities in Strong-Field QED	<b>Sebastian Meuren</b> (Stanford / SLAC)	<b>Session Chair:</b>  <b>Beate Heinemann</b>
18:30-18:55 (09:30)	SLAC E-320: Probing Strong-Field QED at FACET-II	<b>Elias Gerstmayr</b> (Stanford PULSE Institute)	
19:00-19:25 (13:00)	The 3PW NSF ZEUS user facility	<b>Louise Willingale</b> (University of Michigan)	
19:30-19:55 (10:30)	SF QED capabilities at BELLA PW: second beamline overview	<b>Marlene Turner</b> (Lawrence Berkeley National Laboratory)	
20:00-21:30	<i>REMO: After Hours</i>		

**Thursday, September 16 2021**

09:00-09:25 (16:00)	Experimental search for Vacuum Diffraction using high-power laser and XFEL	<b>Yudai Seino</b> (Kyoto University)	<b>Session Chair:</b>  <b>Antonino Di Piazza</b>
09:30-09:55	Focusing of high-precision polarized X-rays for the detection of vacuum birefringence	<b>Annika Tamara Schmitt</b> (Friedrich Schiller University Jena)	
10:00-10:25	Vacuum birefringence and diffraction at XFEL: from analytical estimates to optimal parameters	<b>Elena Mosman</b> (Tomsk Polytechnic University)	
10:30-10:55	Experimental estimates of photon background in a potential light-by-light scattering study	<b>Leonard Doyle</b> (Ludwig-Maximilians-University of Munich)	
11:00-12:30	<i>REMO</i>		
12:30-13:30 (11:30)	<b>Tutorial/Plenary:</b> The Ritus-Narozhny conjecture	<b>Anton Ilderton</b> (Higgs Centre, University of Edinburgh)	<b>Session Chair:</b>
13:30-13:55	First-order strong-field QED processes including the damping of particle states	<b>Tobias Podszus</b> (Max-Planck Institute for Nuclear Physics Heidelberg)	<b>Katarzyna Krajewska</b>
14:00-15:30	<i>REMO: After Hours</i>		

**Friday, September 17 2021**

09:00-09:25	Status of Breit-Wheeler experiment preparations at CALA	<b>Stefan Karsch</b> (Ludwig-Maximilians-University of Munich)	<b>Session Chair:</b>  <b>Thomas Heinzl</b>
09:30-09:55 (10:30)	Interaction of Electromagnetic Waves in a Vacuum	<b>Pavel Satorov</b> (ELI Beamlines, Institute of Physics CAS, Czech Republic)	
10:00-10:25	Resummations in Strong-Field QED	<b>Greger Torgrimsson</b> (Helmholtz-Zentrum Dresden-Rossendorf)	
10:30-10:55 (09:30)	Progress towards realisation of QED-plasmas with high-intensity lasers	<b>Christopher Ridgers</b> (York Plasma Institute, Department of Physics, University of York)	
11:00-11:25	Nonlinear, Strong-Field QED SLAC Experiment E-144	<b>Kirk McDonald</b> (Princeton University)	
11:30-11:55 (12:30)	Challenges in characterizing QED processes in Ritus-Narozhny nonperturbative regime	<b>Alexander Fedotov</b> (National Research Nuclear University MEPhI, Moscow)	
12:00-13:30	<i>REMO</i>		
13:30-14:00			

## List of Poster Contributions

Poster No.	Presenter	Title	Session Day
1	Óscar Amaro	<i>Effects of electron beam geometry on pair production in laser-electron scattering</i>	Tue   Wed
2	Victor Banda	<i>Worldline fermion propagator dressed with N photons</i>	Wed
3	Robin Ekman	<i>Resummations in classical radiation reaction</i>	Tue   Wed
4	Evgeny Gelfer	<i>LCFA for radiation in a time-dependent electric field: applicability and corrections</i>	Tue   Wed
5	Prokopis Hadjisolomou	<i>Enhanced Gamma-Photon Generation Through Laser-Solid Interaction in the Relativistic <math>\lambda 3</math> Regime</i>	Tue   Wed
6	Harsh Harsh	<i>Demonstrating monoenergetic electrons using dual-stage gas cell</i>	Tue   Wed
7	Tae Moon Jeong	<i>Electron-positron pair production by an ultra-intense laser pulse focused by relativistic flying mirror</i>	Tue   Wed
8	Martin Jirka	<i>Reaching high laser intensity by a radiating electron</i>	Tue   Wed
9	Yeong Gyu Kim	<i>Measurement of pulse front tilt by a wavelength-resolved wavefront sensor</i>	Tue
10	Leonhard Klar	<i>Optical Signatures of Quantum Vacuum Nonlinearities in the Strong Field Regime</i>	Tue   Wed
11	Christian Kohlfürst	<i>Dynamically assisted tunneling via high-intensity fields</i>	Tue   Wed
12	Bifeng Lei	<i>Relativistic modified Bessel-Gaussian beam generated from plasma-based beam braiding</i>	Tue   Wed
13	Misha Arturo Lopez Lopez	<i>The QED four-photon amplitudes off-shell</i>	Wed
14	Eva Los	<i>Applications of Bayesian Inference in Radiation Reaction Experiments</i>	Tue   Wed
15	Qingzheng Lyu	<i>High-brilliance ultra-narrow-band x-rays via electron radiation in colliding laser pulses</i>	Tue   Wed
16	Bertrand Martinez	<i>Self-consistent simulations of positron creation and acceleration in a plasma channel</i>	Tue   Wed
17	Arseny Mironov	<i>Multiloop calculations in QED in a strong constant crossed field</i>	Tue   Wed
18	Ricardo Oude Weernink	<i>X-ray vacuum diffraction at finite spatio-temporal offset</i>	Tue   Wed
19	Vishwa Bandhu Pathak	<i>Simulation study of spatial-temporal properties of a relativistic electron beam at the collision-point with a high-intensity laser pulse : Relevant to nonlinear Compton Scattering experiment at CoReLS</i>	Tue
20	Hans Rinderknecht	<i>Relativistically Transparent Magnetic Filaments: a path to megaTesla fields for SF-QED experiments</i>	Wed
21	Antonin Sainte-Marie	<i>Quantum vacuum processes in the extremely intense fields of relativistic plasma mirror sources</i>	Tue   Wed
22	Abhijit P. Sarode	<i>Mathematical determination of temperature on a cuboid crystal in photoacoustic interaction</i>	Tue
23	Ralf Schuetzhold	<i>Sauter-Schwinger effect for colliding laser pulses</i>	Tue   Wed
24	Yuan Shi	<i>Are there phase transitions in strong-field regimes?</i>	Wed
25	Manoranjan Singh	<i>Physical origin of different dynamical stages of the quasiparticle distribution function during pair production by ultrashort laser pulses</i>	Tue
26	Suo Tang	<i>Generation of quasimonoenergetic positron beams in chirped laser fields</i>	Tue
27	Thomas Teter	<i>Numerical Simulations of Ponderomotive Scattering as a Means of High Intensity Measurement</i>	Tue   Wed
28	I-Lin Yeh	<i>Strong interplay between superluminescence and radiation friction during direct laser acceleration of electrons within a magnetic filament</i>	Wed