IRTG Days 2026

Int'l Research-Training Group IRTG 2891 "Nuclear Photonics"

October 29-30, 2026

TECHNISCHE UNIVERSITÄT DARMSTADT

Agenda

Nuclear Photonics IRTG 2891

October 29, 2026 (S1|01, A02 & S1|03, 283)

08:30	Welcome greetings	**Prof. Dr. Norbert Pietralla** Spokesperson IRTG 2891, TU Darmstadt **Prof. Dr. Jörg Schreiber** Ludwig-Maximilians-Universität München
	Session1: Introduction & Infrastructure	
09:00	Overview of the research at the centre for advanced laser operations	**Prof. Dr. Jörg Schreiber**
09:30	Automated beam stabilization at the ATLAS 3000 Laser	**Florian Schweiger**
09:50	Temporal contrast of the ATLAS 3000 laser	**Korbinian Rohrmüller**
10:10	Machine Control and Data Archiving at CALA with Tango	**Mykhailo Salan**
10:30	*Break*	
	Session 2: Laser-driven Ion Acceleration	
11:00	Optimization of a Laser-Driven Proton Source for Applications	**Dr. Sonja Gerlach**
11:30	Development of a Liquid Leaf Target for High-Repetition-Rate Laser-Driven Proton Acceleration	**Michael Bachhammer**
11:50	Reduction of the transverse divergence in target normal sheath acceleration	**Daniel Dewitt**

12:10	Bright MeV electrons and photons from intense laser interaction with nanowire targets	**Stefania-Cristina Ionescu**
12:30	*Lunch Break*	
	Session 3: Laser–Plasma Interaction & Advanced Diagnostics	
13:30	Wavefront Monitoring of a PW-Class Laser via Parasitic Beam Extraction	**Paul Schäfer**
13:50	Optical Probing of laser-plasma dynamics	**Kumudini Pagare**
14:10	Towards multi-angle optical probing of laser-plasma dynamics with sub-picosecond resolution	**Sanne Kleinhenz**
14:30	Measuring Laser-Accelerated Protons with Gas Detectors	**Sophia Pörtner**
14:50	*Break*	
	Session 4: Photonuclear reactions	
15:20	Material Modification and characterization with ns-pulsed lasers at Latitude 0°	**Prof. Dr. Cesar Costa Vera**
15:50	Nuclear resonance fluorescence experiments as a probe for nuclear structure	**Julian Marcus Hauf**
16:20	Investigating the Giant Dipole Resonance of 164Dy using Nuclear Resonance Fluorescence	**Marc Heumüller**
	Scientific discussion and networking	

October 30, 2026 (S1|03, 283)

	Session 5: Fundamental Physics	
09:00	Nonlinear Compton Scattering in the Strong-Field QED Regime at FACET-II	**Sarah Grimm**
09:20	Photon-Photon Scattering: Towards an Experimental Verification	**Timo Pohle**
09:40	Microscopic description of fission	**Nithish Kumar Covalam Vijayakumar**
10:10	Laser-induced fission studies	**Max Weiser**
10:30	*Break*	
	Session 6: Ion Diagnostic	
11:00	Monitoring pulsed ion beams: The ionoacoustic approach	**Antonie Baumeister**
11:20	Ionoacoustic monitoring of pulsed ion beams in solids	**Niclas Weitz**
11:40	Impact of Astigmatism on the Electron Charge in OAM Beam induced LWFA	**Carl Georg Boos**
12:00	Ionoacoustic monitoring of pulsed ion beams in transmission mode	**Tamara Jakob**
	Conclusions	
	Lunch break	
13:30	S-DALINAC 3D Model Tour	