

Weekly Schedule Laser Metrology SS 2026

Presence / also available: Videos Opal (records)

Lecture: Monday, 6. DS., 16:40 – 18:10 Uhr, BAR 218 (marked black)
 Exercise: Tuesday, 6. DS., 16:40 – 18:10 Uhr, BAR 106 (marked blue)

Week		Lecture		Exercise	
Nr.	CW	Date	Monday, 6. DS	Date	Tuesday, 6. DS
1	16	13.04. LB	Lecture 1: Chapter 1. Introduction Chapter 2. Light propagation	14.04. LB	Exercise 1: Wave equation
2	17	20.04. JC	Lecture 2: Gaussian Beam, Fourieroptics I	21.04. LB	Exercise 2: Jones matrix formalism
3	18	27.04. JC	Lecture 3: Fourier Optics II, Basics of Opt. Computing/optical diffractive neural networks	28.04. JC	Lecture 4: Confocal sensor, diffractive lens
4	19	04.05.	Lecture 5: Chapter 3. Laser	05.05.	Lecture 6: Coherence and Interference, Michelson-Interferometer/ Laser types and applications
5	20	11.05.	Lecture 7: Frequency comb, single frequency laser	12.05.	Lecture 8: Chapter 4. Interferometry: Michelson, Sagnac, Gravitation wave detection and measurement
6	21	18.05.	Lecture 9: Holography	19.05.	Exercise 3: Gaussian Beam
7	22	25.05.	– Pentecost / Pfingsten –	26.05.	– Pentecost / Pfingsten –
8	23	01.06.	Exercise 4: Keplerian telescope, beam quality factor, focusing	02.06.	Exercise 5: Diffraction: Single and Double Slit, Grating, Abbe Limit
9	24	08.06.	Exercise 6: Mode Coupling	09.06.	Exercise 7: Fabry-Perot Interferometer / Resonator
10	25	15.06.	Exercise 8: Faraday Effect, Isolator, Sagnac Interferometer	16.06.	Exercise 9: Optical waveguides
11	26	22.06. (SK)	Lecture 10: Chapter 5: Quantum Technology of Second Generation: Imaging & Communication - Quantum Key Distribution, teleportation, entangled photons	23.06.	Lecture 11: Chapter 6. Fiber sensor, propagation of waves in fibers, technical aspects; Intrinsic und extrinsic fiber sensors
12	27	29.06.	Lecture 12: Measurement values: Temperature, Strain, Electrical current	30.06.	Lecture 13: Bragg-Fiber sensors, Rayleigh/Raman/Brillouin +Quantum Technology / Neuromorphic Computing
13	28	06.07. JC/QZ	Lecture 14: Chapter 7. Neuromorphic photonic computing	07.07.	Exercise 10: Quantum Key Distribution, Photon Statistics (SK) Exercise 11: Polarization Entangled Photons for Quantum Imaging and Communication (SK)
14	29	13.07.	–	14.07.	Exercise 12: Brillouin Scattering Exercise 13: Recap/Highlights
15	30	20.07.	– (Lab-Tour: Wed., 22.07. 13:00)	21.07.	– (Lab-Tour: Wed., 22.07. 13:00)