

Weekly Schedule Laser Metrology SS 2025

Presence + 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	Datum	Tuesday, 6. DS
1	15	07.04.	Lecture 1: 1. Introduction 2. Light propagation	08.04.	Exercise 1: Wave equation
2	16	14.04.	Lecture 2: Gaussian Beam, Fourieroptics I	15.04.	Exercise 2: Jones matrix formalism
3	17	21.04.	- Easter / Ostern -	22.04.	Lecture 3: Fourier Optics II
4	18	28.04.	Lecture 4: Confocal sensor, diffractive lens	29.04.	Exercise 3: Gaussian Beam
5	19	05.05.	Lecture 5: 3. Laser	06.05.	Exercise 4: Keplerian telescope, beam quality factor, focusing
6	20	12.05.	Lecture 6: Coherence and Interference, Michelson- Interferometer/ Laser types and applications	13.05.	Exercise 5: Diffraction: Single and Double Slit, Grating, Abbe Limit
7	21	19.05.	Lecture 7: Frequency comb, single frequency laser + Quantum: Photon statistics	20.05.	Lecture 8: 4. Interferometry: Michelson, Sagnac, Gravitation wave detection and measurement,
8	22	26.05.	Lecture 9: Holography	27.05.	Lecture 10: 5. Fiber sensor, propagation of waves in fibers, technical aspects; Intrinsic und extrinsic fiber sensors,
9	23	02.06.	Exercise 6: Mode Coupling	03.06.	Exercise 7: Photon Statistics
	24		- Pentecost / Pfingsten -		- Pentecost / Pfingsten -
10	25	16.06.	Lecture 11: Measurement values of Fiber Sensors: Temperature, Strain, Electrical current	17.06.	Exercise 8: Fabry-Perot Interferometer / Resonator
11	26	23.06.	- (Conference Munich)	24.06.	Exercise 9: Faraday Effect, Isolator, Sagnac Interferometer
12	27	30.06.	Lecture 12: Bragg-Fiber sensors, Rayleigh/Raman/Brillouin +Quantum Technology	01.07.	Exercise 10: Optical waveguides
13	28	07.07.	Lecture 13: 6: Quantum Technology of Second Generation: Quantum Imaging, Communication-Quantum Key Distribution, teleportation, entangled photons	08.07.	Exercise 11: Brillouin Scattering
14	29	14.07.	Exercise 12: Quantum Key Distribution, Quantum imaging	15.07.	Exercise 13: Polarization Entangled Photons