

# Course organization (2019-2020)

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Date	Lecture	Practice	Profs
11/9	Introduction – NL susceptibilities	Anharmonic oscillator	FH/MCSK
18/9	Propagation equation – Energy transfers	<ul style="list-style-type: none"> <li>• Tensor symmetry</li> <li>• Anisotropic optics</li> </ul>	FH/IZ or MCSK
25/9	2 <sup>nd</sup> order nonlinearity	OR OPO thresholds	IZ/MCSK
02/10		Second harmonic intensity	IZ
09/10	Quantum calculation of nonlinear susceptibilities	Nonresonant $\chi^{(2)}$ in a two-level system	FH/MCSK
16/10	Time-resolved spectroscopy (theory)		FH
23/10	Parametric fluorescence	Resonant Raman vs fluorescence	IZ/MCSK
Toussaint	QCM		
06/11	3 <sup>rd</sup> order nonlinearity: optical Kerr effect	Third harmonic generation in focussed regime	FH/MCSK
13/11	Ultrashort pulses		FH
20/11		Phase conjugation – Two-photon absorption	IZ
27/11	Raman diffusion		FH
4/12	Final examination		