

# Lecture Week No. 1

08. – 13.03.2015



<b>Experimental Lectures</b>	Lecture 1: GWs and their effect  <b>Danzmann</b>	Lecture 2: Modulation  <b>Danzmann</b>	Lecture 3: Interferometer and DC readout  <b>Willke</b>	Lecture 4: Interferometer noise sources  <b>Willke</b>	Lecture 5: Fabry-Perot, Pound-Drever-Hall, EOM  <b>Heinzel</b>
<b>General Relativity/ Analytical Relativity</b>	Lecture 1: equivalence principle, time delay, line element, Schwarzschild metric  <b>Steinhoff</b>	Lecture 2: curvature effects, Einstein's field equations I  <b>Steinhoff</b>	Lecture 3: Einstein's field equations II, gravitational waves  <b>Steinhoff</b>	Lecture 4: Gravitational waves from binaries  <b>Hinderer</b>	Lecture 5: Analytical waveform model for binaries, open issues  <b>Hinderer</b>
<b>Analytical Relativity/ Numerical Relativity</b>	Lecture 1: Strong-field geodesic motion of particles and light rays  <b>Hinderer</b>	Lecture 2: Relativistic effects in binary pulsars  <b>Hinderer</b>	Lecture 3: Numerical methods  <b>Hinder</b>	Lecture 4: 3 + 1 Decomposition of Einstein's Equations  <b>Hinder</b>	Lecture 5: Numerical simulations of compact object binaries  <b>Hinder</b>