Lecture Week No. 1

Experimental Lectures	**Lecture 1:** GWs and their effect **Danzmann**	**Lecture 2:** Modulation **Danzmann**	**Lecture 3:** Interferometer and DC readout **Heinzel**	**Lecture 4:** Fabry-Perot, Pound-Drever-Hall, EOM **Heinzel**	**Lecture 5:** Interferometer noise sources **Willke**
General Relativity	**Lecture 1:** Equivalence principle, Curved coordinates **Schutz**	**Lecture 2:** Tensors and Fluids in Special Relativity **Schutz**	**Lecture 3:** Einstein equations **Schutz**	**Lecture 4:** Tensors and physics in curved spacetime **Schutz**	**Lecture 5:** Initial value formulation, Cosmology **Schutz**
Numerical Relativity	**Lecture 1:** 3+1 split of spacetime **Rezzolla**	**Lecture 2:** Formulation of Einstein equations **Rezzolla**	**Lecture 3:** Gauges, initial data and GW extraction **Rezzolla**	**Lecture 4:** Introduction to relativistic hydro-dynamics **Rezzolla**	**Lecture 5:** Discritization techniques **Rezzolla**