



# Lecture Week No. 1

07.03 – 11.03.2016



<b>Relativity/ Astrophysics</b> 	1: Special Relativity Reminder I  <b>Steinhoff</b>	2: Tensor Analysis in Special Relativity I  <b>Steinhoff</b>	3: Tensor Analysis in Special Relativity II  <b>Steinhoff</b>	4: Curved Spacetimes I  <b>Steinhoff</b>	5: Curved Spacetimes II  <b>Steinhoff</b>
<b>Experimental</b>	1: GWs and their effect  <b>Danzmann</b>	2: Modulation  <b>Gerberding</b>	3: Ifo and DC read out  <b>Prijatelj</b>	4: Signal detection theory  <b>Heinzel</b>	5: Ifo noise sources  <b>Lück</b>
<b>Data Analysis and Statistics</b> 	1: Basic Definition of statistics and probability theory  <b>Dent</b>	2: Estimation theory - Introduction and point estimation  <b>Prix</b>	3: Power spectral density estimation  <b>Prix</b>	4: Estimation theory – filtering  <b>Prix</b>	5: Advancet techniques  <b>Alkhatib</b>