

Course Plan: PHY-765 - Gravitational Lensing (GL)

Version: May 28, 2019

Lecture plan subject to change. See https://kasperschmidt.github.io/teaching/SS19_GravLens_UP765 for details.

Week Date Time	Lecture	Exercise/Seminar	Location
1 April 10 8:00-10:00	<u>Slides</u> Intro & Early days of GL	<u>Worksheet</u> (Literature searches and first lenses)	2.28.2.011
2 April 17 8:00-10:00	<u>Slides</u> Light deflection and basic GL geometry	<u>Worksheet</u> (Select poster topic for presentation)	2.28.2.011
3 April 24 8:00-10:00	<u>Slides</u> The lens equation	<u>Worksheet</u> (Continue work on poster)	2.28.2.011
4 May 1 8:00-10:00	Holiday - no lecture. Compensated by 5-10 minutes longer days weeks 1-15		N/A
5 May 8 8:00-10:00	<u>Slides</u> Multiple images	<u>Worksheet</u> (Poster presentations)	2.28.2.011
6 May 15 8:00-10:00	<u>Slides</u> Time delays	<u>Worksheet</u> ("Journal club" allocation 1)	2.28.2.011
7 May 29 8:00-10:00	<u>Slides</u> Magnifying sources	<u>Worksheet</u> (Present "journal club" papers 1)	2.28.2.011
8 May 29 10:00-12:00	<u>Slides</u> Finding (strong) gravitational lenses	<u>Worksheet</u> ("Journal club" allocation 2)	2.28.2.011
9 June 5 8:00-10:00	<u>Slides</u> Microlensing	<u>Worksheet</u> (Present "journal club" papers 2)	2.28.2.011
10 June 12 8:00-10:00	<u>Slides</u> Searching for extrasolar planets with GL	<u>Worksheet</u> (Select topic and prepare for 'talk')	2.28.2.011
11 June 19 8:00-10:00	<u>Slides</u> Modeling Gravitational Lenses	<u>Worksheet</u> (Science presentations w. slides - 1/2)	2.28.2.011
12 June 26 8:00-10:00	<u>Slides</u> Weak Gravitational Lensing	<u>Worksheet</u> (Science presentations w. slides - 2/2)	2.28.2.011
13 July 3 8:00-10:00	<u>Slides</u> Cosmic Shear and the CMB	<u>Worksheet</u> (Select and start preparing outreach)	2.28.2.011
14 July 10 8:00-10:00	<u>Slides</u> The future of GL	<u>Worksheet</u> (Finish outreach)	2.28.2.011
15 July 17 8:00-10:00	<u>Slides</u> Summary, loose ends and Q&A	<u>Worksheet</u> (Outreach presentations)	2.28.2.011

Potential Examination:
45 min. oral examination
20 min presentation w. topics known in advance + Q&A.