

科目ナンバリング							
授業科目名 <英訳>	ILAS Seminar-E2 :The Life and Work of Albert Einstein (アルバート・アインシュタインの生涯と業績) ILAS Seminar-E2 :The Life and Work of Albert Einstein			担当者所属 職名・氏名	数理解析研究所 助教 Helmke, Stefan		
群	少人数群	単位数	2単位	週コマ数	1コマ	授業形態	ゼミナール (対面授業科目)
開講年度・ 開講期	2024・前期	受講定員 (1回生定員)	25 (15) 人	配当学年	主として1回生	対象学生	全学向
曜時限	火5	教室	総合研究4号館307号室 (北部構内)			使用言語	英語
キーワード	Non-euclidean geometry / curvature / relativity						
【授業の概要・目的】							
In spite of what the title of this seminar may suggest, its main objective is to study the developments of geometry during the 19th century, which culminated in Einstein's general theory of relativity in the early 20th century. To a lesser extend, we shall also discuss some mathematical aspects of quantum mechanics and in particular Einstein's objections to this theory.							
【到達目標】							
The aim of this course is to understand the interaction between mathematics and the natural sciences and to engage in English discussions on a scientific topic.							
【授業計画と内容】							
The exacts contents of the seminar is flexible and may depend on special interests of the students. But the topics to be covered will be essentially as follows.							
<ul style="list-style-type: none"> <li>- An overview of Einstein's life and his work</li> <li>- Non-euclidean geometry</li> <li>- Gauss curvature and his "Theorema Egregium"</li> <li>- Riemann geometry</li> <li>- Minkowski space</li> <li>- Special relativity</li> <li>- General relativity</li> <li>- Einstein's view on quantum mechanics</li> </ul>							
【履修要件】							
特になし							
【成績評価の方法・観点】							
The evaluation is based on attendance, participation and in particular on a presentation, which will be given during the class.							
【教科書】							
使用しない							

**[参考書等]**

( 参考書 )  
授業中に紹介する

**[授業外学修 ( 予習・復習 ) 等]**

The students will be asked to prepare a short presentation.

**[その他 ( オフィスアワー等 ) ]**

No particular office hour, but students can make arrangements after the class or by email.