

# 课程大纲

## COURSE SYLLABUS

<b>1.</b>	<b>课程代码/名称</b> <b>Course Code/Title</b>	MAT7064 几何与拓扑专题 <b>Topics in Geometry and Topology</b>
<b>2.</b>	<b>课程性质</b> <b>Compulsory/Elective</b>	选修 <b>elective</b>
<b>3.</b>	<b>课程学分/学时</b> <b>Course Credit/Hours</b>	3/48
<b>4.</b>	<b>授课语言</b> <b>Teaching Language</b>	根据学生的情况可以是英文、中文或者两者相结合。
<b>5.</b>	<b>授课教师</b> <b>Instructor(s)</b>	方复全教授, Stavros Garofalidis 教授, Raul Ures 教授、李勤, 朱一飞, Ingrid Irmer 助理教授  <b>Fuquan Fang, Stavros Garofalidis, Raul Ures, Professor; Qin Li, Yifei Zhu, Ingrid Irmer, Assistant Professor</b>
<b>6.</b>	<b>是否面向本科生开放</b> <b>Open to undergraduates or not</b>	是/Yes
<b>7.</b>	<b>先修要求</b> <b>Pre-requisites</b>	由授课者定  Required by the instructor
<b>8.</b>	<b>教学目标</b> <b>Course Objectives</b>	<p>介绍科研前沿结果, 给学生提出好的科研问题, 引导他们到一个活跃的、有发展前途的研究领域。本课程的专题选取范围可包括微分几何, 复几何, 辛几何, 低维拓扑, 代数拓扑及数学物理。</p> <p>The course will expose the students to the research front , and provide to them good research problems , leading them to an active and promising research field. Possible topics range from differential geometry, complex geometry, symplectic geometry, low dimensional topology, algebraic topology to mathematical physics.</p>
<b>9.</b>	<b>教学方法</b> <b>Teaching Methods</b>	<p>教学方法: 教师授课, 课堂讨论, 全班学生分成几个小组, 每个小组做一个科研性质的项目(group project) 并做演讲。</p> <p>Teaching Method: lectures by instructors, in-class discussions, students will be asked to do group projects of research nature and then make presentations.</p>
<b>10.</b>	<b>教学内容</b> <b>Course Contents</b>	(如面向本科生开放, 请注明区分内容。 If the course is open to undergraduates, please indicate the difference.)
	<b>Section 1</b>	
	<b>Section 2</b>	

Section 3	
Section 4	
Section 5	
Section 6	
Section 7	
Section 8	
Section 9	
Section 10	
.....	<p>教学内容将是授课教师自己的科研成果及其他人的有关结论, 使得整个课程在特定的学期里有一个主旋律。因而内容随授课人的变化而变化, 不同学期讲授的内容也会不同。</p> <p>The course will be centered on the instructor's own research results , plus other researchers' related results, so that the whole course in a fixed semester has a theme/focus. Thus the content of the course will vary from instructor to instructor, and time to time.</p>

11. 课程考核

**Course Assessment**

课堂参与和小组项目及其演讲的表现。  
The score of students will be based on their participation and performance in class lectures, group projects and presentation.

12. 教材及其它参考资料

**Textbook and Supplementary Readings**

授课者的科研文章及有关的科研文章, 鼓励学生积极自动查找相关资料。  
**The textbook and supplementary reading material will be based on the research articles of the lecturer, and related articles and textbooks. The students are encouraged to search related references by themselves.**