

Forcing

Syllabus

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<http://logic.fudan.edu.cn/courses>



Instructor

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Office Hours After class, or by appointment

Course Information

Forcing (Set Theory II), Spring 2018.

Time 6:30 p.m. – 9:00 p.m., Tuesday. **Starting from April 3**

Place TBA

Course Pages <http://logic.fudan.edu.cn/courses>

Prerequisite Set theory and Mathematical Logic I

Objective

This course is designed for senior undergraduates and graduates who want to understand more on set theory, especially the technology of forcing, which is crucial to many constructions, typically for the proofs of relative consistency in set theory.

Contents

We will first introduce the intuitive idea of forcing by looking at some constructions in computability theory. Then we turn to the meta-theory of forcing, which reveals the magic of creating something does not even exist in the universe — the generic objects. For the rest of the course, we will introduce selected notions of forcing: the Cohen forcing, and others to be decided.

Grading Policy

Classroom test (50%), Final paper (50%).

Textbook and Reference

Textbook

Kunen, Kenneth. *Set Theory*, College Publication, 2011.

Main references

郝兆宽、杨跃, 集合论: 对无穷概念的探索, 复旦大学出版社, 2014.

Jech, Thomas, *Set Theory*, Springer, 2003