
Vorlesung:	Infinite Games
Dozent:	Dr. Giorgio Laguzzi
Zeit/Ort:	Dienstag 14-16 Uhr
Übungen:	Donnerstag 14-16 Uhr
Tutorium:	NN
Web-Seite:	http://home.mathematik.uni-freiburg.de/giorgio/SS19/IG.html

Inhalt:

The aim of the course is to focus on games with two players and infinite moves. Such types of games have been well-studied along the years in a branch of mathematical logic called descriptive set theory. Along the lecture we are going to focus on the set theoretical aspects of infinite games, studying the interplay with topological and measure-theoretical questions; more specifically we focus on Banach-Mazur game, the perfect set game and some other variants. Moreover, we also present connections with social choice theory and social welfare theory, such as Arrow's impossibility theorem and the analysis of Pareto pre-orders and/or other principles coming from theoretical economics like Hammond equity and finite anonymity.

Literatur:

- 1.) A.S. Kechris, *Classical Descriptive Set Theory*, Springer, 1995
- 2.) A. Kanamori, *The Higher Infinite*, Springer, 1994
- 3.) T. Jech, *Set Theory*, Springer, 3rd Millenium edition, 2003

ECTS-Punkte:	6 Punkte
Verwendbarkeit:	Reine Mathematik
Notwendige Vorkenntnisse:	Analysis 1
Nützliche Vorkenntnisse:	Mathematische Logik
Folgeveranstaltungen:	bei Interesse Seminar
Studien-/Prüfungsleistung:	Die Anforderungen an Studien- und Prüfungsleistungen entnehmen Sie bitte dem aktuellen Modulhandbuch Ihres Studiengangs.