Mathematical Institute
Polish Academy of Sciences

COURSE DESCRIPTION

Course name	Working Group in Applications of Set Theory
Course type	research seminar (sd)
Supervisor	Piotr Koszmider, Marcin Sabok
ECTS credit allocation	1 – IM PAN Ph.D. program; 3 - recommended for MA programs
Duration	One semester
Number of hours	30
Language	English or Polish, if every participant speaks Polish
Prerequisites	Set theory graduate course
Course content	Set-theoretic methods in diverse fields of mathematics, in particular in Banach spaces, C*-algebras, topology, the structure of the real line, measure theory, Boolean algebras, topological groups. Here we include both the developing of such methods as forcing, descriptive set theory, Ramsey theory as well as their concrete applications in the fields mentioned above.
Recommended reading	Handbook of set theory. Vols. 1, 2, 3. Edited by Matthew Foreman and Akihiro Kanamori. Springer, Dordrecht, 2010.
Learning outcomes	Student is able to follow a presentation of a research paper, is able to interact with the speaker during some presentations, is able to prepare a presentation based on a research paper, is able to understand various ways of applying set-theoretic methods in some other parts of mathematics.
Assessment methods and criteria	Activity during the seminars and giving a talk
Remarks	http://www.impan.pl/~set_theory/Seminar/