

Adam Mickiewicz University
Faculty of Mathematics and Computer Science

GEOMETRY AND TOPOLOGY SEMINAR

11 AM, Friday, June 2, 2017
B1-37, Collegium Mathematicum

Speaker: Martin Frankland (Universität Osnabrück)

Title: **Realization problems in algebraic topology**

Abstract:

Given a space X , its homotopy groups π_*X form a graded group equipped with the action of primary homotopy operations. Given a graded group with such operations, can it be realized as π_*X for some space X , and if so, can we classify all realizations? We will discuss some classification results and some non-realizability results, as well as obstruction-theoretic methods to tackle these problems. We will also survey realization problems for algebraic structures other than homotopy operations.