STUDENT WORKSHOP SZCZECIN 2019

Speaker: Piotr Błaszkiewicz (University of Szczecin)

Title: *A quick introduction to ball spaces*

Abstract: The main goal of the talk is to introduce the concept of ball spaces and to show how these structures can be used in fixed point theory.

A special kind of ball spaces, the so called Caristi-Kirk ball spaces, can be used to provide a simple proof of the Caristi-Kirk fixed point theorem.

Finally we show how these results can be easily applied to prove other theorems such as Ekeland's Variational Principle and the Flower Petal Theorem.