STUDENT WORKSHOP SZCZECIN 2019

Speaker: Krzysztof Krupinski (University of Wroclaw)

Title: *Minimal structures*

Abstract: In the first part, I will discuss basic notions from model theory, in particular definable sets. Then I will focus on minimal structures. An infinite structure is said to be minimal if each definable subset of it is finite or co-finite. I will present a proof of Reinecke's theorem which says that each minimal group is abelian. On the other hand, Podewski's conjecture, saying that each minimal field is algebraically closed, remains one of the oldest unsolved problems in algebraic model theory. It was proved by Wagner in positive characteristic. I will discuss some issues and partial results about minimal fields.