HYPERBOLIC ONE-RELATOR GROUPS

Fudan Topology Seminar

Speaker: Marco Linton

University of Warwick

Time: Thur, Nov. 3, 2022   16:00 - 18:00

Meeting Zoom ID: 853 0188 1524   Password: Fudan2022

Abstract: Since their introduction by Gromov in the 80s, a wealth of tools have been developed to study hyperbolic groups. Thus, when studying a class of groups, a characterisation of those that are hyperbolic can be very useful. In this talk we will turn to the class of one-relator groups. In previous work, we showed that a one-relator group not containing any Baumslag--Solitar subgroups is hyperbolic, provided it has a Magnus hierarchy in which no one-relator group with a so called exceptional intersection' appears. I will define one-relator groups with exceptional intersection, discuss the aforementioned result and will then provide a characterisation of the hyperbolic one-relator groups with exceptional intersection. Finally, I will then discuss how this characterisation can be used to establish properties for all one-relator groups.