

Nagroda Instytutu Matematycznego PAN za wybitne osiągnięcia naukowe w zakresie matematyki



Serdecznie zapraszamy na uroczyste wręczenie Nagrody Naukowej IM PAN, które odbędzie się **dnia 21 października 2021 r. o godzinie 14.30 w sali 409.**

Laureatem Nagrody za rok 2020 został **dr Damian Osajda. O godzinie 15.00 w sali 321**

Laureat Nagrody wygłosi referat:

Around the Tits Alternative for nonpositively curved groups

Abstract: *In 1972 Jacques Tits proved that every finitely generated linear group is either virtually solvable or contains a nonabelian free group. It is widely believed that groups acting geometrically on nonpositively curved spaces behave similarly, that is, they satisfy the Tits Alternative: every finitely generated subgroup is either virtually solvable or contains a nonabelian free group. Intuitively, this means that every such subgroup is either (respectively) reasonably small or very large. I will present my recent work on that question. In particular I will discuss a related problem concerning locally elliptic actions (every element fixes a point) on nonpositively curved spaces. An example, which can be thought of as the first step towards the Tits Alternative is the question of fixed points for actions of finitely generated torsion groups. Such problems arise naturally in various areas: Kazhdan's property (T) can be reformulated as the question on fixed points in actions on the Hilbert space; regularizability and linearizability of subgroups of the group of birational transformations of projective surfaces and of some groups of automorphisms from algebraic geometry have a similar interpretation. The talk is based on joint works with Thomas Haettel, Sergey Norin, and Piotr Przytycki.*