

Vertex-transitive graphs: why semiregularity matters

Dragan Marušič
University of Primorska, Koper, Slovenia
dragan.marusic@upr.si

In this talk I will discuss the still open problem of existence of semiregular automorphisms in vertex-transitive (di)graphs (that is, a non-identity automorphism with all orbits of the same size) and its generalization to 2-closed groups. In particular, I will focus on the importance of the semiregular automorphism to various other open problems in graph theory.