Title: The Weak Circular Flow Conjecture and Applications

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Time: 3:00 pm – 4:00 pm
Venue: MM3, Institute of Mathematical Sciences

Abstract

Tutte’s 3-flow conjecture says that every 4-edge-connected graph has an orientation such that, for each vertex $x$, the indegree of $x$ equals the outdegree of $x$ modulo 3. In 1988 Jaeger suggested a weaker conjecture obtained by replacing 4 by a larger (universal) number and called that the weak 3-flow conjecture. He also suggested a stronger conjecture, called the circular flow conjecture.

In this talk we indicate a proof of the weak circular flow conjecture (and hence also the weak 3-flow conjecture) and discuss its applications to graph decomposition, group flow, and factors modulo $k$. 

Research Group: Discrete Mathematics Research Group