The Weak 3-Flow Conjecture and Graph Decomposition

Carsten Thomassen, Technical University of Denmark

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 to replace 4 by a larger (universal) number and called that the weak 3-flow conjecture. In this talk we present a proof of the weak 3-flow conjecture and discuss its applications to graph decomposition.