SCMS Seminar

COUNTEREXAMPLES TO JAEGER'S CIRCULAR FLOW CONJECTURE

Prof. Cun-quan Zhang

West Virginia University

Time: 15:00-16:30 pm., Fri, March 10, 2017

Venue: Room 2201, East Main Guanghua Tower, Handan Campus

Abstract: It was conjectured by Jaeger that every 4p-edge-connected graph admits a modulo (2p+1)-orientation (and, therefore, admits a nowhere-zero circular (2 + 1/p)-flow). Note that Jaeger's conjecture, for p = 1, 2, implies famous 3-flow and 5-flow conjectures of Tutte. Jaeger's conjecture was partially proved by Lovasz et al. (JCTB 2013) for 6p-edge-connected graphs. In this paper, infinite families of counterexamples to Jaeger's conjecture are presented. For p$\geqslant$ 3, there are 4p-edge-connected graphs not admitting modulo (2p + 1)-orientation; for p$\geqslant$5, there are (4p + 1)-edgeconnected graphs not admitting modulo (2p+1)-orientation. (Collaboration with Miaomiao Han, Jiao Li, Yezhou Wu.)

Shanghai Center for Mathematical Sciences
22F East Guanghua Tower, No.220 Handan Road, Shanghai, China
Tel: 55665643 Fax: 65642190 Postcode: 200433 Email: scms@fudan.edu.cn