MONOCHROMATIC K-CONNECTED SUBGRAPHS IN 2-EDGE-COLORED COMPLETE GRAPHS

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Time：Wed., Nov. 11th, 13:30-14:00
Venue: Room 102, SCMS

Abstract:

Bollobás and Gyárfás conjectured that for any positive integers k and n, with n > 4(k-1), every 2-edge-coloring of the complete graph on n vertices leads to a k-connected monochromatic subgraph with at least n-2k+2 vertices. In this talk, we will illustrate some counterexamples with n = 5k − O(\sqrt{k}), thus disproving the conjecture. We will also introduce a proof of the conjecture for larger n. This is a joint work with Hehui Wu, and Chunlok Lo.