学术报告

Graph knitting: Minimum Degree, Connectivity and Hadwiger's Conjecture

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Venue： Room 111, Center for Applied Mathematics

Abstract： For a positive integer ℓ, a graph G is ℓ-knitted if for every $S \subseteq V(G)$ with $|S| = \ell$ and any partition $S_1, S_2, \ldots, S_k$ of S, there exist k vertex-disjoint connected subgraphs $G_1, G_2, \ldots, G_k$ such that $S_i \subseteq V(G_i)$ for each $i = 1,2, \ldots, k$. Hadwiger's conjecture states that every t-chromatic graph has a K_t-minor. In this talk, we show that every 5ℓ-connected graph is ℓ-knitted and apply this result to prove that the connectivity of minimal counterexamples (in terms of graph minors) is at least $t/5$. We also provide a sharp minimum degree condition for an n-vertex graph to be ℓ-knitted, which will be used as the fundamental tool in the proof of the above connectivity result. This is a joint work with Yan Cao,Guantao Chen, Shushan He and Feifei Song.

欢迎大家参加！