

VCU Discrete Mathematics Seminar

Graphs with $\chi = \Delta$ have Big Cliques

Prof Dan Cranston
VCU!

Tuesday, Sept. 24
12:30–1:20
4119 Harris Hall

Let G be a graph with maximum degree $\Delta \geq 3$. Brooks' Theorem says that if G has chromatic number $\Delta+1$, then G has a clique on $\Delta+1$ vertices; otherwise G has chromatic number at most Δ . In 1977 Borodin and Kostochka conjectured that if G is a graph with maximum degree $\Delta \geq 9$ and chromatic number Δ , then G has a clique on Δ vertices. For maximum degree $\Delta \geq 13$, we prove that if G has chromatic number Δ , then G has a clique on at least $\Delta - 3$ vertices. This is joint work with Landon Rabern.



For the full schedule of speakers, titles and abstracts for Fall 2013, see:
<http://www.people.vcu.edu/~dcranston/DM-seminar/>