VCU Discrete Mathematics Seminar

Maximum average degree and relaxed coloring

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Wednesday, Nov. 8
1:00-1:50
4145 Harris Hall

We say a graph is $(d, d, \ldots, d, 0, \ldots, 0)$-colorable with a of d's and b of 0's if $V(G)$ may be partitioned into b independent sets $O_1, O_2, \ldots, O_b$ and a sets $D_1, D_2, \ldots, D_a$ whose induced graphs have maximum degree at most d. The maximum average degree, $mad(G)$, of a graph G is the maximum average degree over all subgraphs of G. In this note, for nonnegative integers a, b, we show that if $mad(G) < \frac{4}{3}a + b$, then G is $(1_1, 1_2, \ldots, 1_a, 0_1, \ldots, 0_b)$-colorable.

For the DM seminar schedule, see:

`http://www.people.vcu.edu/~dcranston/DM-seminar.html`