

Sufficiency of Hall's condition in list coloring

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In 1989, Hilton and Johnson introduced a generalization of Hall's condition, which is necessary for a graph to admit a proper list coloring. They also characterized graphs for which the said condition is sufficient. We further investigate the question of sufficiency when the list of colors available to the vertices of a graph is derived from the neighborhood set of an auxiliary graph on the same vertex set.

This is a joint work in progress with Peter Johnson.

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