A New Formula for the Determinant of a Graph

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It is known that the vertices of any graph G can be efficiently partitioned into two sets X, $\bar{X}$, where $G[X]$ is Kőnig-Egerváry, $G[\bar{X}]$ is 2-bicritical, and $\alpha(G) = \alpha(G[X]) + \alpha(G[\bar{X}])$, see [1] and [2]. It is shown here that $\det(G) = \det(G[X]) \cdot \det(G[\bar{X}])$.

Trabajo en conjunto con Craig Larson (Virginia Commonwealth University) y Gonzalo Molina (Universidad Nacional de San Luis).

Referencias

[1] C. E. Larson. A note on critical independence reductions. Bull. Inst. Combin. Appl., 51:34–46, 2007.

[2] C. E. Larson. The critical independence number and an independence decomposition. European J. Combin., 32(2):294–300, 2011