

Colloquium

On the determinant of distance matrices of graphs

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摘要：

In this talk, I will introduce some property about the determinant, and then talk about two topics related to the distance matrix of a connected graph. For a connected graph $G = (V; E)$, the distance matrix $D(G) = (d_{ij})$ is a square matrix with index set V and d_{ij} the distance between i and j . In 1971, Graham and Pollak proved that if T is a tree, then $\det(D(T))$ only depends on the order of T . In this talk, I will give new classes of graphs such that $\det(D(G))$ is a constant among each class. In addition, I will introduce the addressing problem and the addressing number for these new graphs. This is a joint work with Jephian Chin-Hung Lin.