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Shaun M Fallat* (shaun.fallat@uregina.ca), Department of Mathematics and Statistics,
University of Regina, Regina, Sask. S4S0A2, Canada. *On Graphs Admitting Certain Multiplicity
Partitions.*

Given a graph G , we let $S(G)$ denote the set of all real symmetric matrices whose pattern of off-diagonal entries are governed by the adjacency of G . If G has n vertices, then the multiplicities of the eigenvalues of any matrix in $S(G)$ forms a partition of n ; this is called a *multiplicity partition*.

In this talk, we discuss graphs that realize certain restricted multiplicity partitions, including those with 2 integers, and tie this concept together with existing spectral parameters (key to the IEP-G) such as $q(G)$ and $M(G)$. (Received September 09, 2020)