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Sudipta Mallik* (sudipta.mallik@nau.edu), Flagstaff, AZ , and **Keivan Hassani Monfared** (keivan.hassanimonfar@ucalgary.ca). *Spectral characterization of matchings in graphs.*

We will present a spectral characterization of the matching number of graphs: A graph G of order n has matching number k if and only if its maximum skew rank is $2k$ and for any given set of k distinct nonzero purely imaginary numbers there is a real skew-symmetric matrix A with graph G whose spectrum consists of the given k numbers, their conjugate pairs and $n - 2k$ zeros. (Received September 13, 2015)