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Suil O* (osuilo@sfu.ca), **Gary Greaves** (grwgrvs@gmail.com) and **Bojan Mohar** (mohar@sfu.ca). *Interlacing families and their application to digraphs*. Preliminary report.

Recently, Marcus, Spielman, and Srivastava proved the existence of infinite families of bipartite Ramanujan graphs by using the method of interlacing families of polynomials. In this talk, we apply their method to prove that for any connected graph G , there exists an orientation of G such that the spectral radius of the corresponding Hermitian adjacency matrix is at most that of the universal cover of G . (Received January 13, 2016)