RAJESH PEREIRA, University of Saskatchewan, Saskatoon, SK
Majorization Relations in the Geometry of Polynomials

Majorization (in the sense of Hardy–Littlewood–Polya and Marshall–Olkin) is an important concept in matrix analysis and the theory of inequalities. In this talk, we show how matrix analysis can be used to derive majorization relations between the zeros and the critical points of polynomials. We will examine both recent work in this area as well as applications to classical problems in the geometry of polynomials such as the spans of hyperbolic polynomials and Mahler measure inequalities.