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SEMINARIO DE GEOMETRÍA Y TOPOLOGÍA

Gi-Sang Cheon

Profesor en

Sungkyunkwan University, Seoul, Kore

Impartirá la conferencia

“Representing polynomials as characteristic polynomials via the Stieltjes transform”

The Stieltjes transform S_A of an infinite lower triangular matrix A with nonzero diagonal entries is defined by $S_A = A^{-1} \bar{A}$ where \bar{A} is the matrix obtained from A by deleting the initial row. In this paper, we express a sequence of polynomials as the characteristic polynomials of the Stieltjes transforms using a highly structured infinite lower triangular matrix called a Riordan matrix. As a result, computation of the zeros of such polynomials becomes amenable to iterative methods for computing eigenvalues, or to eigenvalue location theorems such as the Geršgorin theorem. Some open questions will be given in the last few minutes of this talk.

Lugar: Seminario 225

Fecha: Miércoles, 11 de febrero

Hora: 13:00