Some extremal results with given degree sequences

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Abstract

In extremal graph theory, one studies how graph properties depend on the value of various graph parameters. One of the celebrated theorem is Turán Theorem. In this talk, we investigate graph properties with extremal values among given degree sequences. It is proven that the extremal graphs with the largest spectral radius, Laplacian spectral radius, the Wiener index, the largest Harry index, the number of subtrees, respectively for given tree degree sequences are the same and unique.