

**COLLOQUIUM SPEAKER SERIES**  
**Mathematics and Computer Sciences**

**Wednesday April 15**  
**12:00-12:50, room D634**



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ences), Tehran, Iran.

**BIO:**

Ph.D. in Mathematics, University of Tehran, 2000.  
M.S. in Mathematics, University of Tehran, 1996.  
B.Sc. in Computer Hardware Engineering, Sharif University of  
Technology, Tehran, 1994.

**Spectral characterization of graphs.**

**Abstract**

Two nonisomorphic graphs with the same adjacency spectrum (the multiset of eigenvalues) are called cospectral.

A graph is said to be determined by the spectrum (DS for short) if it is not cospectral with any other graph.

It is conjectured that almost all graphs are DS.

The motivation for studying DS graphs comes from the graph isomorphism problem which is one of the most important open problems in graph theory and computer science.

In this talk, I will give a survey of known families of DS graphs.

A number of methods for constructing cospectral graphs are also discussed.

**STUDENTS ARE ENCOURAGED TO ATTEND !**