

## **Department of Mathematics and Statistics**

COLLOQUIUM Tuesday, November 8<sup>th</sup>, 2016 4:00 – 5:00 pm, Adel Mathematics Bldg., Room 164 (refreshments at 3:45)

## Dr. Fatemeh Afghah

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## Applications of Game Theory in Cooperative Communication Networks

Abstract: Game theory is a mathematical tool to model the interactions among the smart players when they compete with one another or cooperate to achieve a common goal. Recent advances in electronics, computing and communications enable us to consider the current radio devices as smart agents who can observe the actions of other nodes in the network and make the appropriate actions to maximize their own benefits. In this talk, we provide an overview of different game theoretic models and their applications in communication networks. We also provide a game theoretic framework to model the cooperative relaying in communication networks.

Algebra Combinatorics Geometry and Topology (ACGT) Seminar meets every Tuesday, 12:45 - 1:45 pm, AMB 146.

Applied Math Seminar (AMS) meets on Thursdays, 12:45 – 1:45 pm, AMB 164. Jim Swift will continue speaking about pair-coupled oscillators this week.

Friday Afternoon Undergraduate Mathematics Seminar (FAMUS) meets Fridays, 3pm, AMB 164. (not this week...it's Vet's day Friday)