APPLIED MATHEMATICS COLLOQUIUM

On the Complexity of a Network Connection Game

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ABSTRACT:
In this talk, I will discuss some of our new results on a network connection game, the fractional stable path problem (FSPP) introduced by Haxell and Wilfong. FSPP is motivated by the game-theoretic behaviors of the Border Gateway Protocol (BGP). One of the main results of the talk is that the problem of computing even an approximate equilibrium in a fractional SPP game is PPAD-hard. I will also discuss some other cool games related this network connection game.

(Joint work with Shiva Kintali, Laura Poplawski, Rajmohan Rajaraman, Ravi Sundaram)

MONDAY APRIL 27TH 2009
4:30 PM
Building 4, Room 237

Refreshments at 4:00 PM in Building 2, Room 349
(Applied Math Common Room)