Mathematics Department Colloquium

Organizer: Olga Holtz

Thursday, 4:10–5:00pm, 60 Evans

Oct. 23   **Christos Papadimitriou**, UC Berkeley
The Complexity of Finding a Nash Equilibrium

Abstract: In 1950 Nash proved that every game has a mixed equilibrium. Since then many algorithms have been proposed for computing this equilibrium, given the utility tables, but none of them runs in polynomial time. I will explain a recent proof, obtained jointly with Costis Daskalakis and Paul Goldberg, establishing that this problem is "computationally intractable." Part of my talk will be about the subtle notion of "computational intractability", quite a bit different, and weaker, than NP-completeness, needed in order to deal with this problem.