

## Seminar in Nonlinear Systems

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### *Microdisk Lasers, Billiards, and Closed Orbits in Subriemannian Geometry*

Monday, December 9, 2002

3:30 pm

Pierce 218

*Abstract:* Microdisk lasers have been invented and developed at Bell Labs over the past decade and the billiard model has been successfully used in designing the “optimal” cavity shape. We will show that a new class of billiard domains possessing an isolated caustic, which carries only periodic orbits, can be constructed using the methods of subriemannian geometry. We will also discuss some important implication of this construction for the microdisk lasers.

Refreshments at 3:15pm