



Hosted by SIAM

“Modeling Binge Drinking”

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Monday, March 28, 2011  
3:30-4:30 pm  
LeConte Room 412

Pizza and Drinks  
will be provided!



Abstract

*We review models for heroin addiction and alcohol abuse.*

*We develop a two-stage (four component) model for youths with serious drinking problems and their treatment. The youths with alcohol problems are split into two classes, namely those who admit to having a problem and those who do not. It is shown that the model possesses two steady states, one where people have no alcohol problems and one where there is an endemic state involving those with an alcohol problem.*

*The stability of these states is analyzed and a threshold established such that each state will be stable depending on whether the incidence rate is above or below the threshold. The model is analyzed in the context of actual data.*