



The Math/Stats Colloquium
Department of Mathematics and Statistics
San José State University



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Instability in Simple Decision Schemes

MARCH 16, 2016, MH320

Abstract: Cressman has shown that a smooth payoff positive game dynamic has a linearization that is a non-negative constant times the linearization for the replicator dynamics. We will use this to show that in a game of Rock-Paper-Scissors where the payoff associated with losing is larger in absolute value than the payoff associated with winning, no payoff positive game dynamic with nontrivial linearization can be asymptotically stable at the unique Nash equilibrium. This result will be extended to include all continuous payoff positive game dynamics using other methods.

Background: Differential equations and Calculus III are assumed; no background in game theory required.

About the speaker: Dashiell Fryer received his BS in Computer Science and BA in Mathematics here at SJSU and then received his PhD in Mathematics from the University of Illinois at Urbana-Champaign. After teaching at Pomona College, he returned to SJSU in Fall 2015 as an Assistant Professor of Mathematics.

SNACKS IN MH331B AT 2:30 PM

TALKS START AT 3 PM

For more information, see our full schedule at:

<http://www.math.sjsu.edu/~hsu/colloq/>