



**The Center for Control, Dynamical Systems, and Computation
University of California at Santa Barbara
Winter 2008 Seminar Series
Presents**

On Singular Non-zero Sum Differential Games

Jose B. Cruz, Jr.
Ohio State University

Friday, March 7, 2008 3:00-4:00pm Harold Frank Hall 1104

Abstract:

Singular game problems are like singular control problems except that there are two or more controllers or decision makers. We focus on two-controller systems with linear dynamics where each separate controller objective functional is quadratic in the state variables but the control variables are explicitly absent. We discuss how the epsilon Nash equilibrium of the singular game can be obtained using only regular optimal control and stabilization tools to determine the asymptotically epsilon Nash equilibrium state feedback strategies.

About the Speaker:

Jose B. Cruz, Jr. received the B. S. degree, summa cum laude from the University of the Philippines, the S.M. degree from the Massachusetts Institute of Technology and the Ph.D. degree from the University of Illinois, Urbana-Champaign, all in electrical engineering. He is a Distinguished Professor of Engineering at the Ohio State University. Previously, he served as Dean of Engineering at OSU, Professor of Electrical and Computer Engineering at the University of California, Irvine, and at the University of Illinois, Urbana-Champaign.

He is a member of the National Academy of Engineering and a corresponding member of the National Academy of Science and Technology of the Philippines. He is a Fellow of AAAS, ASEE, IEEE, and IFAC. He received the Curtis W. McGraw Research Award of ASEE, the IEEE Richard M. Emberson Award, and the Richard E. Bellman Control Heritage Award of AACC.

He was President of the IEEE Control Systems Society, Editor of the IEEE Transactions on Automatic Control, a member of the IEEE Board of Directors, IEEE Vice President for Technical Activities, and IEEE Vice President for Publication Activities. He served as Chair of the Engineering Section of AAAS and a member of the Board of Examiners for Professional Engineers for the State of Illinois.
