

Four-Campus Video-Conference Series, F-W-S 2006-7

Human Sciences and Complexity

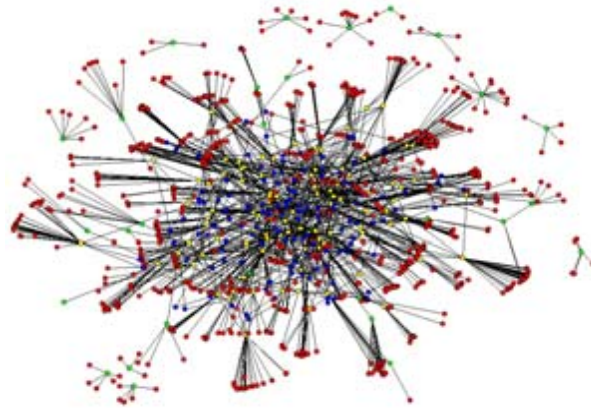
Video Conference Locations for Participants

UCLA: 285 Powell Library – Don Roby vidcon@ucla.edu 310 206-7449

UCSD: 260 Galbraith Hall – Mary Gibsen mgibsen@ucsd.edu 858 534-8265

UCR: A139 Olmsted Hall – Mike Capriotti mcap@ucr.edu 951 827-3045

UCI: 122 Social Science Tower – Jeffrey.Fisher@uci.edu 949 824-7581



February 9, 2007: Friday, 1:30-3:00 telecast from UCSD

Halbert White and Karim Chalak (Economics), UCSD

http://eclectic.ss.uci.edu/~drwhite/center/cac.html#Hal_White

Discussants Judea Pearl (UCLA CS) and John Hipp (UCI SocEcol)

“A Unified Framework for Defining and Identifying Causal Effects”

Abstract: This paper unites three complementary approaches to defining, identifying, and estimating causal effects: the classical structural equations approach of the Cowles Commission; methods of the labor econometrics and related treatment effects literatures; and the nonparametric structural equation approach (including the structural Directed Acyclic Graph (DAG) approach of the machine learning literature). The settable system framework nests these prior approaches, while affording significant improvements to each. For example, the settable system approach permits identification of causal effects without requiring exogenous instruments; instead, a weaker conditional exogeneity condition suffices. It removes the stable unit treatment value assumption of the treatment effect approach and provides significant insight into the selection of covariates. It generalizes the DAG approach by accommodating mutual causality and attributes. We provide a variety of results ensuring structural identification of general covariate-conditioned average causal effects, laying the foundation for parametric and nonparametric estimation of effects of general interest and new tests for structural identification.