



The University of Chicago
Department of Statistics
Seminar Series

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**Empirical and Counterfactual Conditions
for Sufficient Cause Interactions**

MONDAY, November 26, 2007 at 4:00 PM
133 Eckhart Hall, 5734 S. University Avenue

Refreshments following the seminar in Eckhart 110.

ABSTRACT

Sufficient-component causes are discussed within the deterministic potential outcomes framework so as to formalize notions of sufficient causes, synergism and sufficient cause interactions. Doing so allows for the derivation of counterfactual and empirical conditions for detecting the presence of sufficient cause interactions. The conditions for 2-way and 3-way sufficient cause interactions are presented both with and without assumptions of monotonicity. The statistical tests derived for sufficient cause interactions are compared with and contrasted to interaction terms in standard statistical models.