

## Il Dipartimento di Economia Organizza il Seminario

### **IDENTIFICATION AND ESTIMATION OF OUTCOME RESPONSE WITH HETEROGENEOUS TREATMENT EXTERNALITIES**

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#### **Abstract**

This paper studies the identification and estimation of treatment response with heterogeneous spillovers in a network model. We generalize the standard linear-in-means model to allow for multiple groups with between and within-group interactions. We provide a set of identification conditions of peer effects and consider a 2SLS estimation approach. Large sample properties of the proposed estimators are derived. Simulation experiments show that the estimators perform well in finite samples. The model is used to study the effectiveness of policies where peer effects are seen as a mechanism through which the treatments could propagate through the network. When interactions among groups are at work, a shock on a treated group has effects on the non-treated. Our framework allows for quantifying how much of the indirect treatment effect is due to variations in the characteristics of treated peers (treatment contextual effects) and how much is because of variations in peer outcomes (peer effects).

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La partecipazione è aperta a tutti gli interessati