

## **The Evolution of Contractual Norms in Populations of Interacting Agents.**

Peyton Young

A "contractual norm" is a set of terms that is standard in a given locale for a given economic purpose. Once established, such a standard tends to perpetuate itself because it creates expectations about what is fair and appropriate in a given type of economic bargain. We describe a dynamic process by which such contractual norms form endogenously. Agents are dispersed in a geographical space, and the recontract periodically. The probability of a contract being accepted by a given pair of agents depends on its expected payoffs and on the frequency with which it is used by neighboring agents. This stochastic dynamical system can be analyzed using techniques from statistical mechanics. The most likely states are those that consist of "patches" where contractual terms are nearly uniform, separated by boundaries where the terms shift abruptly. Survey data reveal just such a pattern in the distribution of cropsharing contracts in Illinois.