

Project Summary

Felipe Motta

Universidad de Los Andes

Mentor: Samuel Bowles, Research Professor, Santa Fe Institute

I have been working on an Agent-Based model of a monetary pre-capitalist economy (agents are self-employed, there is no capital accumulation and transactions are made with fiat money). The main objective of the model is to present an example of how market self-organization emerges from the decentralized interaction of self-interested agents and analyze the impact of supply shocks under different monetary rules. During my stay at the SFI I will try to build the simplest model that exhibits coordination in order to understand exactly what causes it (parameter values? market structure?, learning?, price forming?). I will also try to come up with better price setting mechanisms than the one I am currently using and compare their effect on coordination. Once the simple model is complete, I will try to extend the model to a capitalist economy allowing for investment, capital accumulation and employment. Finally, if time permits, I will also like to model a Sraffa-like economy (production of goods with goods) and try the simple model with non self-interested agents.