Introduction and Overview of the Econ1.Net Robot Trading Laboratory

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Abstract

Econ1.Net is a web-based laboratory for running robot-trading market simulations. Free software components are available for many pieces of the simulator (e.g., at https://github.com/drpaulbrewer/single-market-robot-simulator) but the easy-to-use web/cloud combination is offered as a for-pay service. The economic environment is a repeated period, private values and costs environment controlled by the researcher and typical to robot simulation and human subject lab research. Various minimal intelligence / heuristic trader algorithms are supported (including ZI). Traders have individually- adjustable poisson arrival rates. The marketplace is a double auction with adjustable parameters for order queue depth, and resetting or not resetting the order queue after each trade. Simulations can run in the local web browser or in Google Cloud. Running in Google Cloud offers the ability to parallelize simulations and can currently run up to 100 different simulation treatments simultaneously as a single study. Several examples will be provided and quirks discussed.