Introducing the Computational Economics "Algorithmic Repository and toolKit"

github.com/econ-ark

Generic Presentation

May 4, 2018

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1. Solving dynamic stochastic optimization problems
   - 'Hard' Bellman problems with uncertainty, 'kinks,' nonconvexities
2. Simulate behavior of populations of agents
3. Finding equilibria for markets/economies populated by such agents

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  - Ultimate goal: Get examples on the ARK of all types of animal (model)

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  - 1970 econometrics: Write your own matrix inversion package!
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- Lots of reinventing of the wheel
- Progress is very slow

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Remove the excuse 'Structural model was not worth the effort'

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  - AstroPy
  - Statistics: 'R' and the Journal of Statistical Software
  - Many open-source resources in other sci/tech fields

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Need to make it 'normal science':

- Transparent, reproducible
- *easy* (not hard) to 'stand on the shoulder of giants'

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References I

Carroll, Christopher D., Jiri Slacalek, Kiichi Tokuoka, and Matthew N. White (2017): "The Distribution of Wealth and the Marginal Propensity to Consume," *Quantitative Economics*, 8, 977–1020, At http://econ.jhu.edu/people/ccarroll/papers/cstwMPC.