

Introducing the Computational Economics “Algorithmic Repository and toolKit” github.com/econ-ark

Presentation by Chris Carroll and Matthew White at
CESifo Conference, Venice

June 13, 2017

What Is It?

State-of-the-art set of tools for:

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- ① Simulating behavior of populations of agents
- ② Solving dynamic stochastic optimization problems
 - Particularly adapted for Bellman problems with 'kinks' and quirks

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 - Unlike Noah's, our ARK can hold more than two of each kind!
 - Ultimate goal: Get examples on the ARK of all types of animal (model)

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 - But, please credit us, and participate in discussions

Who Has Produced It?

Name	TLA	Affiliation
<i>Christopher D Carroll</i>	CDC	JHU, CFPB
<i>David C Low</i>	DCL	CFPB
<i>Nathan M Palmer</i>	NMP	OFR
<i>Matthew N White</i>	MNW	UDel, CFPB
<i>Alex Kaufman</i>	AMK	CFPB → ? (Alcatraz?)
<i>Jiaxiong Yao</i>	JXY	JHU → IMF

Nothing herein may be interpreted as reflecting opinions of

- CFPB - United States Consumer Financial Protection Bureau
- JHU - Johns Hopkins University
- IMF - International Monetary Fund
- OFR - Office of Financial Research, U.S. Treasury
- UDel - University of Delaware

Major credit goes to CFPB - a 21st Century Regulator!

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Organization Going Forward

Standard Github tools, esp:

- Issue Tracker: If You See Something, Say Something

Topic Czars

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info@econ-ark.org	-	General Purpose Questions
czars@econ-ark.org	-	Volunteer to be a Czar
ideas@econ-ark.org	-	Ideas for Improvement

Timeline

When	What	Lessons
2006-2013	SolvingMicroDSOPs	Surprisingly popular
2014-12	IMF-CFPB Workshop	Lots of enthusiasm
2015-12	CFPB-IMF Workshop	Not HARK, ARK!
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 - Aim: This year

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Participation: CFPB, OFR, IMF

Interest From: FRB, ECB, BLS

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 - 2 Formal, structural, “software” theory

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‘Local Average Treatment Effects’ results are

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17th and 18th century version of github.com!

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I prefer (3)!

Lessons Learned from Other Fields About What Works

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- Empirical fact: Many other open source communities have succeeded
- Economists can't be *that* different ...

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- ... Your Ideas? ideas@econ-ark.org

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