

# Introducing the Econ-ARK: Economics “Algorithmic Repository and toolKit”

Generic Presentation

May 23, 2018

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

- 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

# 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>	ABK	CFPB → ? (Timbuktu?)
<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



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## Three Years

- Hire Programmers, RA's, Open Source Project Managers, etc etc

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

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  - Progress very slow
  - Confidence is not very high

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

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Policymaking = Applied Theory. Options:

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- 2 Formal, structural, “software” theory

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17th and 18th century version of [github.com](https://github.com)!

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Run our demonstration notebooks using [MyBinder](#)

# References I

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