# Introducing the **Econ-ARK**: Economics "Algorithmic Repository and toolKit"

Short Version

July 30, 2018

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State-of-the-art tools for:

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Solving microeconomic dynamic stochastic optimization problems

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  - 'Hard' Bellman problems with uncertainty, 'kinks,' nonconvexities

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- Simulating populations of agents
  - Whether or not they are solving DSOP
  - Allows disciplined exploration of deviations from RE
- Finding equilibria for markets/economies populated by such agents

Who, What, Why July 30, 2018 2/9

### Who Has Produced It?

Name	TLA	Affiliation
Christopher D Carroll	CDC	JHU, CFPB
David C Low	DCL	CFPB
Nathan M Palmer	NMP	OFR
Matthew N White	MNW	UDel, CFPB
Alex Kaufman	ABK	$CFPB \to Princeton$

Nothing herein may be interpreted as reflecing 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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• Hire Programmers, RA's, Open Source Project Managers, etc etc

• Heterogeneous Agent Macro Models

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

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- Get our our demonstration notebooks from DemARK

### References I

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