

Ernesto Carrella

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Employment

University of Oxford

PostDoc

Oxford, UK

2015–present

George Mason University

Research Assistant

Fairfax, VA

2010–2015

Education

George Mason University

PHD, Computational Social Science

Fairfax, VA

2010–2015

University of Illinois

M.Sc Economic Policy

Urbana, IL

2008–2010

Specialization in Advanced Econometrics

Chinese University of Hong Kong

B.Sc Economics

Hong Kong

2005–2008

Papers

Journal Articles.....

- E.Carrella, "*Sticky Prices Microfoundations in a Agent Based Model Supply Chain*"
Accepted with Minor Revisions: *Journal of Economic Interaction and Coordination*
[📄 draft paper](#) [🌐 github repository](#) [📄 presentation slides](#) [📺 presentation video](#)
- E.Carrella, "*Zero-Knowledge Traders*",
Journal of Artificial Societies and Social Simulation, 17(3)4. 2014
[📄 final paper](#) [🌐 github repository](#) [📄 presentation slides](#)

Conference Papers.....

- E.Carrella, "*A Cybernetic Model of Macroeconomic Disequilibrium*",
In press as chapter in *Springer Proceedings in Complexity 2016*
[📄 draft paper](#) [🌐 github repository](#) [📄 presentation slides](#)
- E.Carrella, "*A Multi-Threaded Economy*",
Presented at the Computing in Economics and Finance, 2012
[📄 conference paper](#) [🌐 github repository](#)
- E.Carrella and M. Hendrey, "*An Order Book Immediacy Model*",
Presented at the Workshop on Economic Heterogeneous Interacting Agents., 2012 ,
[📄 conference paper](#)
- E.Carrella, "*The Taxicab Market: simple ripoffs dynamics*",
Presented at the SPP Graduate Research Conference, 2012 ,
[📄 conference paper](#)

Awards

George Mason University

Presidential Scholar Grant

Tuition waiver and stipend for 3 years with 20 hours a week of research assistantship

Professors assisted:

- Worked for Dr. [Matthew Hendrey](#);
 - Financial simulation, order book dynamics
- Worked for Prof. [Andrew Crooks](#);
 - 3D simulation, open-sim
- Worked for Dr. [Maksim Tsvetovat](#);
 - Textual analysis and data mining
- Worked for Prof. [Doyne Farmer](#), [Rob Axtell](#), [Peter Howitt](#)
 - Housing market modeling and unit testing

Fairfax, VA

2010–2015

Languages

English: Fluent

Italian: Native

Computer skills

Java: JUnit, Swing, JavaFX, Concurrency

Statistics: R, MySQL

ABM: MASON, NetLogo

Authoring: \LaTeX , Markdown, KnitR, Jekyll

Statistic skills

Classic Econometrics: Least Squares, Kalman Filters, Time Series, Survival Analysis

Non-Parametrics: Kernel Regressions, Support Vector Machines, Random Forests

Machine Learning: Cross-Validation and Model Selection, Monte Carlo modeling, Bayesian Optimization