Luca Mingarelli, PhD

Financial Stability Expert, European Central Bank DG Macroprudential Policy and Financial Stability

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My website and professional page

Research interests I am interested in banking and financial networks, in the role interconnec-

tions play in giving rise to systemic risk, in the evaluation and design of macroprudential regulation, and in its implications for financial stability.

Policy Experience Based in the Systemic Risk and Financial Institutions division. Actively

collaborated in cross-divisional and cross-institution projects: most notably with the Stress Test Modelling division within the System Wide Stress Test group as part of the FSC-WGST3; with the ESRB as part of a ESRB-WS3 Top-down assessment of a mass bond downgrade scenario project; with the SRB on a Optimised bail-in strategies project; as part of the ATC-FSC-WS1 Climate Risk project team. Experience in leading and managing small

teams.

Employment European Central Bank: Financial Stability Expert, 2020-Present

European Central Bank: PhD Trainee, 2019-2020 Imperial College London: Research Fellow, 2018

Education Imperial College London

Ph.D., Mathematics, 2014-2018.

MRes, Mathematical Sciences, 2013-2014.

King's College London

MSc, Theoretical Physics, 2012-2013.

Universitá di Bologna

BSc, Physics, 2009-2012 (cum laude).

Teaching DG-MF, European Central Bank

(2019-2020) Taught courses on Python and micro-structural contagion models.

Department of Mathematics, Imperial College London

(2014-2018) Graduate teaching assistant in: Probability and Statistics,

Statistical Modelling, Time Series, Analysis, Mathematical Methods I and II, Differential Equations, Mechanics, Python, Matlab, Maple, Computing in C++, Mathematics and Physics courses for the Chemistry, Physics, and

Aerospace departments.

Technical Big Data, Python, R, C++, UNIX, Matlab, Mathematica, Maple

Skills SQL, Hadoop, PySpark, Q/Kdb+ (basic: work in progress)

Consultancy CVING, JinnCapital, Outsmart Insight, BAE Systems, ABACE Group.

Publications Market impact contagion: a European perspective, with M. Kaijser and M.

Sydow, working paper (forthcoming);

Financial contagion and resolution strategies, with P. Bochmann, L. Kuitunen, J. Metzler, M. Montagna, and M. Spaeth, working paper (forth-

coming);

EA system-wide scenario analysis of large scale corporate bond downgrades, with A. Bouveret, C. Christophersen, G. Coppins, M. Ferrari, C. Fricke, C. Graciani, S. Hack, P. Jakubik, M. Kaijser, M. Ludwig, A. Monzon, S. Pasqualini, D. Pérez, E. Rancoita, E. Schaanning, M. Sydow, A. Vinci, ESRB Technical Notes, 2020;

Euro area banks' sensitivity to corporate decarbonisation, with M. Belloni, R.M. Porcel, and P. Radulova, *ECB Financial Stability Review*, 2020;

Assessing the systemic footprint of euro area banks, with M. Adam, P. Bochmann, M. Grodzicki, M. Montagna, C. Rodriguez d'Acri, and M. Spaggiari, *ECB Financial Stability Review*, 2019;

Exotic vortex lattices in binary repulsive superfluids, with Ryan Barnett, Physical Review Letters, 2019, (arXiv);

Vortex lattices in binary mixtures of repulsive superfluids, with Eric Keaveny, Ryan Barnett, $Physical\ Review\ A$, 2018, (arXiv);

Simulating superfluids with many vortices, JPhys+, 2016;

Simulating infinite vortex lattices in superfluids, with Eric Keaveny, Ryan Barnett, IOP-Journal of Physics: Condensed Matter, 2016, (arXiv);

Fellowships Awards and other experiences

Member of Mathematics Research committee (Imperial College, 2014-2017) Member of Teaching Strategy committee (Imperial College, 2013-2017) Representative of Mathematics PhD students (Imperial College, 2014-2017) APS Travel grant (New Orleans, 2017)

HAIRS Grant for MBP-SQS Conference (Cape Town, 2016) Global Fellow at Massachusetts Institute of Technology (Boston, 2015) International School of Physics Grant (Varenna, 2014) King's Leadership Award (2013)

Conferences and Seminars

- Economics & Complex Systems Journal Club (Invited speaker) École Polytechnique, Paris, 2020 (France)
- Joint ECB-Oxford Workshop on Financial Interconnectedness (Organiser)
 Frankfurt am Main 2020 (Germany)
- INET Complexity Economics Seminar (Invited speaker) Oxford 2019 (UK)
- Financial Stability Committee Workstream 3 Conference Frankfurt am Main 2019 (Germany)
- APS March Meeting New Orleans 2017 (US)
- Joint Quantum Center, Multicomponent Atomic Condensates and Rotational Dynamics Newcastle 2016 (UK)
- Theory of Condensed Matter Group Annual Meeting Warwick 2016 (UK)
- Many-body physics in Synthetic Quantum Systems Stellenbosch 2016 (South Africa)
- Quantum Matter at Ultralow Temperature Varenna 2014 (Italy)

References

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