



## Call for research positions at the Financial Regulation Research Lab (Labex ReFi)

Paris, France

<http://www.labex-refi.com/>

“Financial System Dynamics and Regulation”

Keywords: banking, finance, institutions, networks, accounting rules and norms, prudential rules and norms, behavioral biases, systemic risk, contagion, coordination, agent-based modelling, dynamic systems analysis, computation and simulation, experimental analysis, econophysics, fundamental financial analysis.

### Working environment

The Financial Regulation Research Lab (Labex ReFi) was created in 2009 under the initiative of the ESCP Europe (acting as initiator and hosting institution) together with the Cnam, the Ena, the University of Paris 1 Panthéon-Sorbonne. It was granted with a ten-year budget fund under the auspices of the French Government. It focuses on financial regulation to better understand, analyse and assess its impact not only for banking and finance, but also for economy and society.

### Research Position

The Labex ReFi offers renewable research position(s) for post-doctoral candidates interested in developing, coding, testing and applying agent-based modelling, computational and simulation techniques, and dynamic systems analysis to better understand the financial system dynamics and the evolving interaction of financial rules and norms with corporate structures and behaviors.

The modelling draws upon a background approach that has been established - among others - by Biondi, Giannoccolo and Galam (2012, Physica A), Biondi (2015, Applied Economics) and Biondi and Righi (2015, Journal of Economic Interaction and Coordination), where an artificial financial market is populated by heterogeneous interacting agents which trade under alternative sets of institutional configurations.

Recruited candidate(s) will integrate the research team to co-develop this approach to include some of the following matters of interest: (i) coordination issues among financial intermediaries, including networks, financial contagion and systemic risk; (ii) structure and impact of prudential supervision and regulation on financial stability and resilience; (iii) diverse sources of information (disclosure, financial media, rumors); (iv) sophisticated and evolving trading strategies; (v) fundamental financial analysis as either investment strategy (à la Ohlson and Penman), or financial economic analysis of financial market performance (à la Shiller); (vi) alternative mechanisms of opinion dynamics (including social networks); (vii) alternative market price clearing protocols (e.g. pseudo-walrasian, bilateral matching, matching with intermediaries).

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le cnam





## Candidate Profile

Recruited candidate(s) is expected to co-develop the models, and then code and run simulations (and possibly a limited number of analytical computations and/or econometric tests) on a variety of possible applications of the models being developed by the research group.

Preferred candidate(s) is expected to have solid skills in complex and dynamic systems analysis through analytical, econometric or computational approaches. Some knowledge of (financial) economics is deemed to be helpful in order to facilitate collaboration with the research team and improve on economic analysis of the simulation results. Model coding will be preferably realized on Matlab, as the existing code has been already developed through this software. Use of other programming and scripting languages may be considered.

Recruited candidate(s) will work under the direct supervision of Prof. Yuri Biondi (Cnrs – ESCP Europe, Research Director at the Labex ReFi) in close active collaboration with the research team, the local institutional partners and the international partners, including Dr. Simone Righi (Hungarian Academy of Sciences and University of Modena and Reggio Emilia).

Although post-doctoral candidates are preferred, doctoral candidates and outstanding master-thesis students with an interest in pursuing a Ph.D. thesis (including joint PhD thesis projects with French and international partners) may be considered. Visiting researchers for shorter terms of three/six months may also be considered.

## Terms and Conditions

Actual terms and conditions will be adjusted according to the candidate profile and experience. They will assure satisfying living conditions in the Paris area, in line with competitive options. Recruited candidates will be eligible to funding and facilities provided by the Labex ReFi to its members, including cost coverage for conference presentations and access to a large set of databases.

## Application

Please send your detailed curriculum vitae, motivation letter, and academic work sample (publications, works in progress, and/or master or doctoral theses) to

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Deadline date for applications is 30 September 2015.

For further inquiry:

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