

POST-DOCTORAL POSITION DATA-DRIVEN MULTI-LAYER NETWORK APPROACHES TO QUANTIFY SYSTEMIC RISK AND RESILIENCE

We are searching for: An excellent early stage scientist with a PhD or equivalent in physics, mathematics, computer science, economics, or related fields. Ideally, you have experience in working with financial network data and agent based models, are eager to extend your knowledge in network analysis, data mining, and large-scale agent based models. You should have a critical, open-minded, entrepreneurial, and collaborative spirit.

We offer: A fully funded two+one year postdoctoral position (the third year will depend on the availability of funding) at our internationally renowned institution, IIASA. The actual research group is also located at the Complexity Science Hub Vienna (CSH), in Vienna, Austria. The successful candidate will have the opportunity to work on the empirical analysis of unique financial data in order to understand the origin and spreading of systemic risk on multi-layer networks and the emergence of resilience. A further aim in the group is the development of large-scale agent-based simulation models, which the candidate would also be involved in.

Your profile: Having gained relevant research experience during the completion of your PhD or equivalent; you must be proficient in English both written and spoken. We expect you to have the proven ability to independently carry out data-intensive research as exemplified by your past works that showcase your strong programming and mathematical skills. Analytical and numerical skills both for data handling, data cleaning, and programming are necessary. Experience in design and implementation of data mining projects would be ideal.

Appointment Terms: The successful applicant will be initially be offered a full-time employment contract for two years. Depending on the availability of funding, there may be a possibility to extend the contract for a third year.

IIASA offers a competitive salary (based on qualifications and experience) together with a benefits package which includes home leave, moving and settlement allowances, educational grants for children of school age, and five weeks' annual vacation. IIASA salaries are exempt from taxation in the host country of Austria, subject to the principle of income aggregation.

Application: Applicants should send their application material to recruitment@iiasa.ac.at with the subject line: "Post-Doc Application: Quantifying Systemic Risk". Application material must include a CV, list of publications, a detailed research statement (why you think you are an excellent candidate), and any additional material showing your mathematical excellence, computational skills, and creativity. Please, also include names and full contact addresses of at least one individual that is willing to write a letter of reference for you.

Deadline for receipt of applications: 05 November 2019

The successful candidate is expected to take up the position in January 2020.

We are:

IIASA is an international scientific institute that conducts research into the critical issues of global environmental, economic, technological, and social change that we face in the 21st century. Our findings provide valuable options to policymakers to shape the future of our changing world. IIASA is independent and funded by scientific institutions in Africa, the Americas, Asia, and Europe. For general information about our Institute and our research activities, please visit the IIASA web site.

IIASA is a member of the Complexity Science Hub Vienna (CSH). The objective of CSH is to host, educate, and inspire scientists who are dedicated to collect, handle, aggregate, and make sense of big data in ways that are directly valuable for science and society. We seek to provide an exciting, creative environment free of bureaucratic constraints for open-minded visionaries who are brave enough to step out of mainstream science. Please check out our websites to get to know us and our work:

www.iiasa.ac.at

www.csh.ac.at