Vandana Ramakrishnan
PhD Student, Dept. of Economics
University of California Irvine
Irvine, CA 92617
Email : vthandas@uci.edu

Dear Members of the Selection Committee,

I am excited to apply for the Graduate Student Workshop on Heterogeneous-Agent Macroeconomics, taking place in Cambridge, MA from June 12-14. As a third-year PhD student in the Department of Economics at the University of California, Irvine, I am highly motivated to attend this workshop to enhance the computational skills required for my research.

I am currently working on two projects utilizing the heterogeneous agent framework. The first project focuses on examining the role of expectations in heterogeneous agent models that are motivated by survey data. I am exploring how expectations of households and firms can impact the macroeconomic outcomes in such models. The second project centers on understanding the banking channel of inequality using historical banking data. In this project, I am studying how the structure of the banking sector can amplify or dampen the impact of inequality on macroeconomic outcomes. I believe that the skills and knowledge I will gain from this workshop will be instrumental in accelerating my research progress and providing me with valuable insights for future research.

I value the opportunity to learn and discuss with some of the leading researchers in the field of heterogeneous-agent macroeconomics. I am eager to engage in discussions with other graduate students and and build relationships that facilitate knowledge sharing beyond the workshop.

I have attached my motivation letter and CV with a list of completed macroeconomics courses. Additionally, I have included the contact information for Prof. Fabio Milani, a member of my graduate advising committee and my professor for Macroeconomic Theory III and Advanced Macroeconomics II, who can provide a reference upon request.

Thank you for considering my application. I look forward to hearing from you.

Kind Regards,
Vandana Ramakrishnan

Reference

Prof. Fabio Milani
Professor
Dept. of Economics
School of Social Sciences
University of California Irvine
Irvine, CA 92617
Email : fmilani@uci.edu

Vandana Ramakrishnan

610 SST, University of California Irvine, CA 92697
(+1) 949-617-6468 ⋄ vthandas@uci.edu ⋄ 94vandana@gmail.com

RESEARCH INTERESTS

Macroeconomics, Monetary Economics, Behavioral Macroeconomics, Inequality, Monetary History

EDUCATION

University of California, Irvine (UCI) *2020-2025*
Ph.D. in Economics
M.A. in Economics *2020-2021*

Jawaharlal Nehru University (JNU), India *2016-2018*
M.A. in Applied Economics

St.Xavier's College, Mumbai, India *2013-2016*
B.A. in Economics with minors in Mathematics and Statistics

GRADUATE COURSEWORK IN MACROECONOMICS

Macroeconomic Theory I	Prof. Guillaume Rocheteau
Macroeconomic Theory II	Prof. William Branch
Macroeconomic Theory III	Prof. Fabio Milani
Monetary Economics I (UCLA)	Prof. Gary Hansen, Prof. Lee Ohanian
Macro & Finance	Prof. Eric Swanson
Business Cycle History	Prof. Gary Richardson
Advanced Macroeconomic Theory	Prof. Fabio Milani
Monetary Economics II	Prof. Eric Swanson
Computational Economics	Prof. Oliko Vardishvili[1]

RESEARCH EXPERIENCE

Research Assistant to Prof. Gary Richardson, UCI	*April 2022 - ongoing*
National Institute of Public Finance and Policy, New Delhi	*Aug 2019 - July 2020*
Ministry of Finance, Government of India	
Reserve Bank of India, Mumbai	*Aug 2018 - July 2019*
Research Assistant to Prof. Manmohan Agarwal, JNU	*June 2017 - July 2017*
Kerala State Planning Board, Thiruvananthapuram	*July 2017 - Aug 2017*
National Stock Exchange, Mumbai	*April 2015 - May 2015*

PUBLICATIONS

Taxes and Unemployment, *International Journal of Economic Theory, 2021* with Rajit Biswas

[1] to be completed by June, 2023

CONFERENCES AND SEMINARS

Network Science in Economics and Finance 2019 *2019*
Indian Institute of Management Ahmedabad, India
Reserve Bank of India, Mumbai *2019*
Department of Economic and Policy Research
Conference on Economic Theory and Policy, JNU *2018*
Kerala State Planning Board, Thiruvananthapuram *2017*

TEACHING EXPERIENCE

Teaching Assistant at UCI
Graduate: Operations Analytics, Statistics for Data Science
Undergraduate: Microeconomics I & II, Money and Banking, Economics of Risk & Uncertainty, Markets and Networks, Corporate Finance, Applied Econometrics, Introduction to Financial Investments

SKILLS

Software MATLAB, Dynare, R, Python, Stata
Language English, Hindi, Malayalam, Spanish (beginner)

Motivation Statement

Vandana Ramakrishnan, PhD Student, University of California Irvine, Email : vthandas@uci.edu

I am thrilled to apply for the Graduate Student Workshop on Heterogeneous-Agent Macroeconomics. I am a third year PhD student in the Department of Economics at the University of California, Irvine. I am excited about the prospect of the workshop to learn the computational techniques that can help advance my research in two projects that use the HA framework.

The first project explores the importance of expectations in HA models. Incorporating micro data from survey expectations can capture the uncertainty and heterogeneity in expectations among different groups of agents. In particular, I am working on answering the following questions. What is the impact of incorporating survey expectations data into HA models on the accuracy of macroeconomic forecasts? How do heterogeneous expectations among agents impact the effectiveness of monetary policy? I anticipate that the lecture on HANK models used at the New York Fed would offer valuable insights for this project.

The second project, the banking channel of inequality is motivated by my empirical analysis which looks at the impact of a historical Federal Reserve regulatory policy on regional inequality in the United States. It drives me to these broader questions. What is the role of financial institutions in shaping patterns of spatial inequality? How does the Federal Reserve's policies impact inequality across different regions and demographic groups? What are the policy implications of the banking channel of inequality and how can they be addressed? I am working on supporting my empirical motivation with a HA model to answer them.

My desire to expand my knowledge in HA macro and inequality led me to attend the Stanford SITE session, *Macroeconomics and Inequality*, last August, where I had the opportunity to preview the latest research and interact with leading researchers in the field. In my endeavor to build a HA model, I have been trying to use the Sequence Space Jacobian toolkit from the first edition of the workshop materials. However, I have found it challenging to grasp the intricacies of a HANK model and the intuition and techniques for solving the SSJ relying on online material on my own. Therefore, I believe that attending the workshop this year would be an excellent opportunity for me to address this gap in my knowledge and gain the intuition and expertise I need from the authors themselves.

My goal is to expand my research by modeling various channels of inequality and emphasizing the role of expectations supported by HA theory. Attending this workshop will complement my training in applied macroeconomics and DSGE modeling and enable me to develop the skills required to become a successful quantitative macroeconomist with a keen interest in expectations and inequality.

Thank you for your time and consideration of my application.
Best Regards,
Vandana Ramakrishnan