

Roman Chuhay

Ph.D. candidate

Citizenship: Ukraine, *Date of birth:* 30 of Sept. 1979

Homepage: <http://sites.google.com/site/rchuhay>

*Department of Economics,
Universidad de Alicante,
Campus de San Vicente,
03080 Alicante, Spain*

☎ (+34) 965903614 ext: 3339

cell: (+34) 617569434

✉ rchuhay@merlin.fae.ua.es

Placement Officer: Giovanni Ponti

Email: giuba@merlin.fae.ua.es

Phone: (+34) 965903619

Department Secretary: Cristina Ramirez

Email: cristina@merlin.fae.ua.es

Phone: (+34) 965903614

Fields of Interest

Main Fields Social Networks, Microeconomics, Industrial Organizations, Labor Economics

Secondary Fields Financial Economics, Marketing

Education

PhD Economics, *Quantitative Economics Doctorate, University of Alicante, Spain*

Thesis: "Diffusion of Information in Networks"

Supervisor: Fernando Vega

Expected in June 2010

Visiting student at European University Institute, Italy.

MA Economics (GPA 3.82/4.33), *Kiev School of Economics (EERC), Ukraine.*

Thesis: "The Business Cycle Behavior of Gini Coefficient of the Income Distribution"

Supervisor: Serguei Maliar.

BA Applied Mathematics (with honor), *Sumy State University, Ukraine.*

Major: Non-Linear Stochastic Systems.

Thesis: "Modeling of the Neural Networks Forecasting System Using Methods of Non-Linear Dynamics"

Research Papers

Word of Mouth,
Social Networks

"Marketing via Friends: Strategic Diffusion of Information in Social Networks with Homophily" (Job Market Paper)

The paper studies the influence of homophily on the optimal strategies of a monopolist, whose marketing campaign relies on a word of mouth communication in a network. Homophily is a tendency of people to interact more with those who are similar to them. In the model, consumers can learn about the product directly from advertisement or from their neighbors. The monopolist uses product design and price to influence consumers' decision to buy the product and to select channels through which word of mouth propagates in the network. We found a number of results: (i) depending on the homophily level it is optimal to design the product attractive for all consumers or specialize on one group; (ii) price elasticity of demand is increasing in the level of homophily; (iii) social welfare is increasing in the level of homophily; and (iv) a product designed to attract all consumers may be optimal even if the monopolist is interested only in one group of consumers. Finally, we show that the optimal product design strategy is robust to the shape of the preferences frontier and does not change if advertisement is targeted.

Labor
Economics,
Social Networks

"Labor Market and Search Through the Personal Contacts"

Existing literature on labor economics assumes that underlying network of contacts is exogenous. In this paper we study endogenous formation of personal contacts network. We assume that an unemployed worker may activate personal contacts during a job search. However, the benefits of higher probability to find a job through contacts are balanced by cost of link activation. We establish the existence of the equilibrium and characterize properties of

corresponding network of personal contacts. We find that under empirically plausible parametrization multiple equilibria may emerge. We show that intensity of search through personal contacts is non-monotonic function of the the market conditions. During the periods of low or high unemployment rate the equilibrium network is sparse, while for moderate levels of unemployment network shows highest density. This behavior of network propagates productivity shocks in the economy and may be responsible for observed high volatility of unemployment rate.

Work in progress

“Stability of Financial Networks” with H.J. Kiss

“Make Them Talk: Strategic Diffusion of Information in Networks”

“Friends, Wealth, Job: All are Network Phenomena”

“The Business Cycle Behavior of Gini Coefficient of the Income Distribution”

Scientific Projects

- 2007–2010 Research Assistant, “Decision-making and interaction processes in socioeconomics contexts,” Ministry of Science and Innovation, SEJ2007-62656. Director: Carmen Herrero.
- 2006–2008 Research Assistant for Fernando Vega.
- 2005–2007 Research Assistant, “Bankruptcy problems. Capital donation and economic growth,” Ministry of Science and Innovation, SEJ2004-08011. Director: Carmen Herrero.

Teaching Experience

Undegraduate courses

- 2006–present T.A. for Claudio Campaneale, *Advanced Macroeconomics I: OLG models* (Spanish)
- 2008 T.A. for Javier M. López Cuñat, *Microeconomics II: Industrial Organization*, (Spanish)

Graduate courses

- 2005–2007 T.A. for Serguei Maliar, *Advanced Macroeconomics I: Dynamic programming*, (English)
- 2005–2006 T.A. for Pascal Mossay, *Mathematics for economists*, (English)

Conferences and Seminars Presentations

- Jun 2009 Society for the Advancement of Economic Theory (SAET) Conference, Ischia
- 2009 Eighth Workshop on Networks in Economics and Sociology, Utrecht
- 2009 Networks Workshop, EUI
- 2008 Microeconomics Workshop, EUI
- 2007, 2008 Theory Workshop, UA

Scholarships and Awards

- 2006 **Award** for the best Master Thesis of 2006 at QED.
- 2005–2009 *Scholarship* (FPI) from Spanish Ministry of Science and Education.
- 2002–2004 *Scholarship* from Kraft Foods for studying at Kiev School of Economics.
- 2002 **Second Prize**, *Students Psychology Contest.*, Ukraine.
- 2001 **First Prize**, *Students Programming Contest at Sumy State University*, Ukraine.
- 2000 **Second Prize**, *Students Programming Contest*, Ukraine.

Research and Programming Projects

- Simulations of 10,000 Nodes Network (C++/Matlab) to accompany Fernando Vega’s paper “Adaptability and structure in network organizations”
- “Modeling of Neural Network with Back-Propagation Method of Study,” writing program (C++) and fitting the data. Supervisor: V. Karpusha.

- “Using Hopfield’s Neural Network for Image Recognition and Data Recovery,” working paper on the Programming Student Conference at SSU. Supervisor: V. Karpusha.
- “Parser for Programs Written on Different Languages,” Design of the algorithm and programming (C++). Supervisor: V. Lyubchak.

References

Professor **Fernando Vega**
 European University Institute
 VSP, via della Piazzuola 43
 50133 Firenze, Italy
 phone: (+39) 055 4685 951
 fax: (+39) 055 4685 902
 Fernando.Vega@eui.eu

Professor **Marco van der Leij**
 University of Cambridge
 Sidgwick Avenue,
 Cambridge CB3 9DD, UK
 phone: (+44) 1223 335207
 fax: (+44) 1223 335475
 mjev25@cam.ac.uk

Professor **Iñigo Iturbe**
 Universidad de Alicante
 Campus de San Vicente
 03080 Alicante, Spain
 phone: (+34) 96 590 3614
 fax: (+34) 96 590 3898
 iturbe@merlin.fae.ua.es

Other activities

- 2007 Referee for Journal of Geographical Systems
- 2004-2006 Webmaster of Economics Department at UA website (part time)
- 2003-2004 Market Research Assistant in the Trade Department of the Swedish Council (part time)
- 2003-2004 Webmaster of KSE website (part time)
- Summer 2003 Internship at the Sales Operation Department of the Gillette Ukraine LLC.

Languages

English	Fluent	Spanish	Fluent (DELE advanced)
Ukrainian	Native	Russian	Native
Italian	Beginner		

Computer skills

programming	C/C++, perl, PHP, Matlab, Mathematica, NetLogo	Scientific	Matlab, Mathematica, Maple, Stata, NetLogo
typography	L ^A T _E X, Microsoft Office, Open Office		