Gabriel Martinez Roa

Personal Information

Contact: University of Wisconsin-Madison,
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Languages: English (fluent), Spanish (native), Portuguese (basic)

Education

2008 - 2012 B. A. in Economics, **CIDE**, *Summa cum laude*
2013 - 2016 MS Economics, **UW-Madison**, WI, USA
2013 - Current PhD, Economics, **UW-Madison**, WI, USA
Research Interestes:
Microeconomic Thoery, Decentralized interactions, Information design.

Dissertation Committee and References

(Chair) Professor Marzena Rostek
UW-Madison (608) 262-6723,
mrostek@ssc.wisc.edu

Professor Antonio Penta
U Pompeu Fabra & Barcelona GSE
antonio.penta@upf.edu

Professor Marek Weretka
UW-Madison (608) 262-2265,
weretka@wisc.edu

Professor Bill Sandholm
UW-Madison, (608) 263-3858
whs@ssc.wisc.edu

Scholarships and Certificates

Fall 2016 Distinguished teaching assistant award, *UW-Madison, Econ*
2013 - current Two-year University Fellowship + Three-year Assistanship, *UW-Madison*
Summer 2015 Summer Internship Program, *Bank of Mexico (DGEF)*
October 2012 Macro-Prudential Policies certificate, *IMF-CEMLA*
July 2012 Best GPA in class 2008-2012, *CIDE*
July 2012 Outstanding Performance at graduating exam, *CENEVAL*
Fall 2011 One-Semester Exchange Program Fellowship, *CIDE-ECON*
Fall 2011 Exchange Program Scholarship, *CIDE-OIAA*
2008 - 2011 Academic Excelence Fellowship, *CIDE*

Work Experience

2016 - Current | Proyect Assistant at UW-Madison
Decentralized interactions *Marzena Rostek*

Summer 2015 | Summer research intern at Banco de Mexico, Mexico City
Own research on Systemic risk and decentralized markets, Seminar paritication

2012 - 2013 | Economic Research Analyst at CEMLA, Mexico City
Financial inclusion and stability; Economic volatility and growth *Maria Jose Roa*

	Research Asistant at CIDE, Mexico City
Spring 2012	Estimation of the total economic valuation of the ecosystems in Mexico. *Victor Carreon*
Spring 2011	Analysis of competitiveness and the existance of industrial clusters in Mexico. *Kurt Unger*

Teaching Experience

	Teaching Asistant		
Fall 2016/2017	(703) Math for Economists	*Raymond Deneckere*	- UW-Madison
Spring 2016	(713) Thry: Micro Seqnce II	*Lones Smith/ Bill Sandholm*	- UW-Madison
Fall 2015	(711) Thry: Micro Seqnce	*Lones Smith/ Bill Sandholm*	- UW-Madison
Spring 2015	(101) Principles of Micro	*Ricardo Serrano-Padial*	- UW-Madison
Fall 2014	(302) Interm. Macro Thry	*Ananth Seshadri*	- UW-Madison
Fall 2012	Advance Microeconomics	*Luciana Moscoso*	- CIDE
Spring 2012	Game Theory	*Alexander Elbittar*	- CIDE
Spring 2011	Microeconomics I	*Luciana Moscoso*	- CIDE
Fall 2010	Macroeconomics II	*Alejandro Rodriguez*	- CIDE

Work in progress

- **Persuasion with Unknown Biases**

  I consider a model of bayesian persuasion where a decision maker (the receiver) receives a recomendation emanating from an experiment designed by a biased sender, as in Kamenika and Gentskow celebrated paper. However, the decision maker here is uncertain about the bias of the designer (size or direction). He only knows the underlying distribution of types of designers. Upon receiving a recommendation to take an action, the agent must both infer the likelihood of the message coming from each of the possible designers, thus of the information structure that generated the message and also learn about the true state of the world. In Many situations consumers get to experience or directly observe the results of an experiment, tho being unsure about the informativeness of the experiment itself. I model this through an uncertainty about the bias of the sender giving the recommendation. I discuss the effects of sources disclosure and contrast it with classic result of communication without commitment.

- **Dynamic Decentralized Markets (Joint with Marzena Rostek)**

  In this paper we study the dynamic behavior of decentralized markets. Using a flexible framework we consider the standard double auction linear pricing model to define market clearing exchanges that are interconnected via the assets they trade and the players that participate in them. This is, we consider market interactions in a hyper-graph, this allows for multilateral interactions and arbitrary connections between exchanges. We are interested in the efficiency properties of decentralized structures with frequent trading. Likewise, we explore open questions about the network effects of financial inclusion, innovation and over-the-counter trading of standardized assets.

- **Games of Contracts among Groups (Joint with Marzena Rostek and Ji-Hee Yoon)**

  We study games where players' belong to one or multiple groups. Their payoffs are a function only of the actions of the players in their groups and can sign contracts with them. This is, players choose contingent schedules of their actions as a function of other players' actions. Assuming quadratic payoff functions, we characterize the equilibrium in linear contracts where players correctly anticipate the strategic impact they have on other players. The game structure endogenously defines a weighted, directed network among players, with weights given by the optimal equation of residual strategic impact across counterparts. We provide comparative statics for a general class of games, those where players' groups form a complete network with respect to the externalities they have on each other, the strength of their connections, the number of players in the network and provide necessary and sufficient conditions for large games to be efficient.