

## Meet the IGIER Scholars

### Fabio Maccheroni



*You hold an undergraduate degree in Mathematics from the University of Milano and a PhD degree in Applied Mathematics from the University of Brescia. Who are the teachers and scholars, who made the most profound impact on the way you think as an economist, and why?*

Erio Castagnoli. In 1996 he gave a 45-minute seminar which transformed the prejudices of an arrogant young *pure* mathematician about *applied* mathematics into curiosity. He taught me to search for answers to the questions I care about irrespective of how difficult or fashionable these questions are. He also taught me a fundamental lesson: in forming the party for this quest, you want companions who are better than yourself.

Next, Massimo Marinacci. He transmits passion and dedication to knowledge, be it economic theory or classical history. Speaking of decision theory, for me Massimo together with Itzhak Gilboa and David Schmeidler set the scholarly and moral standards of the profession.

*In 2010, through a competitive nomination process, an international selection committee has awarded you with the Carlo Alberto Medal assigned to the best Italian economist (working in Italy or abroad) under 40. Bravo! Can you describe three exciting research questions on which you have been working or are currently working?*

The first time I attended a probability class I was ecstatic about the beauty of the theory. At the same time I used to think “well, it only remains to call the pantheon and ask some benign goddess (dices are a human deed, but natural events ...)” The theoretical issue of incompleteness of probabilistic information, together with its implications in economics and finance are my main research topics.

A conceptually related problem is the problem of preference formation. Like assigning probabilities, choosing is a difficult task, and my problem in doing

that has never been maximizing my utility over available alternatives, but rather constructing a ranking among them (the utility to maximize). Incompleteness of preference relations was the main topic of my Ph.D. dissertation and I keep finding intriguing questions on this issue.

More in general, decision making seems to me one of the most pervasive and complex activities on which every person spends considerable time and effort. Pervasiveness and complexity make the problem very exciting. A simple example is given by preference interdependence: people care about what other people consume, even when no strategic interaction is observable. How can this fact be reconciled with the neoclassical theory of utility maximization? What are the policy implications?

*What would be your comment to someone who says: economic theory is either boring or useless or both. “Get lost” is not an acceptable comment. I want you to provide an elegant and smart answer.*

Indeed I would not bother to reply. When many years ago I made such a “smart” comment about Latin literature, I got the following wise answer: “Very good, prove your statement and, more important, show that you know what you are talking about by writing a ten-page critique against Latin literature, and I will read it with interest.”

*Bocconi University has a pretty large, excellent, and collegial Theory group spread across the two departments of Decision Sciences and Economics. Suppose a student wants to enter academia and become an economic theorist. What advice would you give to him or her?*

It often happens that students knock at my door and ask advice about pursuing an academic career. By now, they all know the answer even before knocking at my door: “Advice is free and what you pay is what you get. You could invest your time more fruitfully---I do not care for the moment about your research plans---by studying something (anything). Did you read Nash (1950) one-page paper on equilibrium points in N-person games? Or Debreu (1959) book?” At the end of this first meeting, we agree on some book to read or class to attend, and then I tell the student “Come back if you really really loved studying this stuff.”

Some come back. One who did and makes me especially proud is Simone Cerreia Vioglio (he got his Ph.D. at Columbia University and just joined Bocconi, choosing it over job offers he received in the United States).

*Imagine yourself travelling back in time and being offered the possibility of being Archimedes (or Euclid?), Napoleon, or Jesse Owens. Which one would you pick and why?*

Euclid. He was the first mathematician who in order to understand a real object (our physical world) built an abstract model (geometry) from principles (axioms) and studied it. He systematically founded what we call today the axiomatic approach, which is (and has been for 23 centuries) the method of all theories, in mathematics, physics, biology, economics, etc.

*What is the thing you never did and you would love to do in the future? Singing "Nessun dorma" in the role of Calaf at La Scala? Sailing around the world in 80 days? Something else?*

Something else. XXXXXXXXXXXXXXX

*(Milano, September 1, 2011)*