

# Marina Resta

Researcher

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## *Education and training*

2004

**PhD**

University of Genova - Genova - IT

## *Academic experience*

2005 - ONGOING

**Lecturer**

University of Genova - Genova - IT

## *Language skills*

**English**

Proficient

**Spanish**

Independent

**German**

Basic

## *Teaching activity*

Currently I am teaching on three courses at (undergraduate) master degree level:

Modern Portfolio Theory (dal 2014), CdLM in Economia e Istituzioni Finanziarie (EIF), 6 CFU

Metodi computazionali per il pricing di opzioni e poste attuariali (dal 2005), CdLM in Amministrazione, Finanza e Controllo (AFC), 6 CFU

Utilizzo del software R (dal 2015), CdLM in Economia e Istituzioni Finanziarie (EIF), 3 CFU

Over the past years I've been also appointed for the following courses:

Undergraduate Calculus (Matematica Generale) M-Q (formerly: Matematica Generale E-O) from 2005 to 2014;

Undergraduate Calculus (Matematica Generale) at Savona, from 2005 to 2012;

Financial Mathematics (Matematica Finanziaria) at Savona, from 2005 to 2012.

## *Postgraduate research and teaching activity*

**Supervision of PhD students, residents and post-doctoral**

## **fellows**

I am currently supervising two doctoral theses focusing on the calibration of the variance and covariance matrix used for financial hedging and heterogeneous agent systems in financial markets, respectively.

## **PhD committees membership**

Since 2017: Membro del Collegio docenti del Dottorato in Economia dell'Università degli Studi di Genova.

From 2005 to 2011: Membro del Collegio docenti del Dottorato in Economia Applicata e Metodi Quantitativi dell'Università degli Studi di Genova.

## ***Research interests***

Machine learning models.

Network analysis, with focus on correlation-based networks.

Robust optimization.

Multivariate Heteroskedastic Models.

## ***Grants***

2014 - 2015

### **Dashboard supporting sustainable developments in urban territories**

Participant

2013 - 2014

### **Computational and Stochastic models for the evaluation of insurance risk within the Solvency II framework**

Principal investigator

2012 - 2013

### **Modelli matematici per la gestione e il controllo di rischi finanziari ed assicurativi.**

Participant

2011 - 2012

### **Modelli matematici per l'analisi e il controllo del rischio.**

Participant

2010 - 2011

### **Analisi dell'attività e dei costi (standard) della struttura complessa di medicina e chirurgia d'urgenza e d'urgenza**

Participant

2010 - 2013

**Percorsi di cura nuovi modelli organizzativi e di gestione centrati sul paziente**

Participant

2008 - 2009

**Percorsi di cura nuovi modelli organizzativi e di gestione centrati sul paziente**

Participant

2006 - 2007

**Modelli matematici per il rischio assicurativo e finanziario.**

Participant

2005 - 2006

**Modelli Matematici per i Mercati dell'Energia.**

Participant

2003 - 2005

**Mathematical models and energy markets**

Principal investigator

2002 - 2003

**Come i mercati emergono e come funzionano istituzioni micro-comportamenti e risultati collettivi**

Participant

2001 - 2002

**Metodi computazionali per l'analisi e la modellazione dei mercati elettrici**

Principal investigator

2000 - 2001

**Agenti artificiali nella previsione dei mercati finanziari.**

Principal investigator

1999 - 2000

**Analisi di fenomeni di criticità auto-organizzati nei sistemi economici**

Principal investigator

***Editorial activity***

I am editor for various journals including: Applied Mathematics; American Journal of Intelligent Systems; American Journal of Mathematics and Statistics; Frontiers in Applied Mathematics and Statistics; Management; Global Research Journal on Humanities and Social Science Teachers.

I am also referee for: AI Communications; American Journal of Intelligent Systems; American Journal of Mathematics and Statistics; Applied Soft

Computing; Computers and Mathematics with Applications; Economics Bulletin; Eurasian Economic Review; Hybrid Intelligent Systems; IEEE Computational Intelligence Magazine; IEEE Transactions on Neural Networks; Intelligent Systems in Accounting, Finance and Management; International Journal of Computer Mathematics; Journal of International Financial Markets, Institutions & Money; Journal of Systemics, Cybernetics and Informatics; KES; Management; Neurocomputing; New Mathematics and Natural Computing; Pattern Recognition Letters; Quantitative Finance; Soft Computing and Automation Journal; The Open Artificial Intelligence Journal.

I am also appointed as reviewer for national and international research projects.