#### Federico Marchetti

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### **Curriculum Vitae**

- Born in Rome, Italy on April 5, 1943. Italian citizen. USA citizen.
- Highest Italian University degree at the time (*laurea*), cum laude, in Physics, from the University of Rome, awarded November 16, 1968.
- Member of AMS, SIAM

### **Academic Positions**

- November 1, 1993 to 12/31/2003: Full Professor in the Department of Mathematics in the Polytechnic of Milan (Probability and Statistics courses for Engineering students). Retired on 1/1/2004
- November 1, 1990 to October 31, 1993: Full Professor in the Department of Mathematics of the University of Turin, Italy (Probability and Statistics courses for Computer Science and Mathematics students)
- November 1, 1987 to October 31, 1990: Associate Professor (a permanent position) in the Department of Mathematics of the University of Genoa (1987-88: *Operations Research*, 1988-89 and 1989-90: *Mathematical Statistics*).
- June 1985 to October 31, 1987: Associate Professor in *Probability Theory* in the Department of Mathematics of the University of Rome *La Sapienza*.
- 1976-77 to June 1985: *Professore Incaricato Stabilizzato* (full time teaching of a yearly course, tenured), at the Department of Mathematics of the University of Rome *La Sapienza*.
- November 1, 1976 to June 1985: Assistente Ordinario (a permanent position), in conjunction with the appointment as *Professore Incaricato* (full time teaching of a yearly course), at the Department of Mathematics of the University of Rome La Sapienza.
- From November 1, 1973 to October 31, 1977 *Professore Incaricato* at the Mathematical Institute of the University of Camerino, Italy.
- From January 1, 1970 to October 31, 1973 supported by research fellowships at the University of Rome *La Sapienza*, funded by the Italian National Council of Research (C.N.R.) and the University of Rome *La Sapienza*. This support was suspended for fifteen months, while serving compulsory military duty.

#### **Teaching Activities at American Institutions**

- Fall 2015 Quarter: teaching on line classes Intermediate Algebra I (Math 98) and Intermediate Algebra II (Math 99) at Shoreline Community College, and face to face class Statistics (Math& 146) at North Seattle College.
- Spring 2015 Quarter: teaching on line classes Intermediate Algebra I (Math 98) and Intermediate Algebra II (Math 99) at Shoreline Community College, and face to face class Calculus II (Math& 1552) at North Seattle College.
- Winter 2015 Quarter: teaching on line classes Intermediate Algebra I (Math 98) and Precalculus I (Math& 141) at Shoreline Community College.
- Fall 2014 Quarter: teaching on line classes Intermediate Algebra II (Math 99), and Precalculus I (Math& 141) at Shoreline Community College
- Spring 2014 Quarter: teaching on line Precalculus I (Math& 141) at Shoreline Community College and Statistics, Math& 146, a face to face class t North Seattle College.
- Winter 2014 Quarter: teaching an on line class, Precalculus I (Math& 141), at Shoreline Community College, and two face to face classes (Intermediate Algebra, Math 99, and Calculus I, Math& 151) at Lake Washington Technical College.
- Fall 2013 Quarter: teaching an on line class, Intermediate Algebra (Math 99) at Shoreline Community College, and two face to face sections of Intermediate Algebra (Math 99) at Lake Washington Technical College.
- Summer 2013: teaching two sections of Probability I (Math 394) at the University of Washington, and an on line class, Intermediate Algebra (Math 99) at Shoreline Community College.
- Spring 2013: teaching a class in Statistics (Math& 146), and a class in Intermediate Algebra (Math 99) at Lake Washington Technical College.
- Winter 2013 Quarter: teaching an on line class, Intermediate Algebra (Math 99), at Shoreline Community College, and two face to face classes, Intermediate Algebra (Math 99) and Statistics (Math& 146) at Lake Washington Technical College
- Fall 2012 Quarter: teaching an on line class, Intermediate Algebra (Math 99), at Shoreline Community College, and two face to face sections of Introduction to Statistics (Math& 146) at Lake Washington Technical College.
- Summer 2012 Quarter: teaching two sections of Probability I (Math 394) at the University of Washington Seattle.
- Spring 2012 Quarter: teaching the on line section of Intermediate Algebra (Math 99) and face to face sections of Prealgebra (Math 80) and Intermediate Algebra (Math 98) at Lake Washington Technical College
- Winter 2012 Quarter: teaching the on line section of Intermediate Algebra (Math 99) and a face to face section of Introduction to Algebra (Math 90) at Lake Washington Technical College
- Fall 2011 Quarter: teaching the on line section of Intermediate Algebra (Math 99) and a face to face section of Precalculus I (Math& 141) at Shoreline Community College
- Summer 2011 Quarter: teaching Advanced Calculus I (two sections) at the University of Washington, Seattle.
- Spring 2011 Quarter: teaching Precalculus I (Math& 141) at North Seattle Community College, and on line sections of Introduction to Statistics (Math& 146 and Math 211), and Intermediate Algebra (Math 99) at Shoreline Community College.
- Winter 2011 Quarter: teaching Calculus II (Math& 152) at North Seattle Community College, and the on line sections of Introduction to Statistics (Math& 146 and Math 211) at Shoreline Community College
- Fall 2010 Quarter: teaching Precalculus I (Math& 141) at North Seattle Community College, and the on line section of the Intensive Algebra Course (Math 99 N1) at Shoreline Community College
- Summer 2010 Quarter: teaching Probability I (Math 394) at the University of Washington
- Spring 2010 Quarter: teaching Intermediate Algebra (Math 98) and Precalculus II (Math& 142) at North Seattle Community College, and the on line section of the Intensive Algebra Course (Math 99 N1), and the on line section of Precalculus I (Math& 141 N1) at Shoreline Community College
- Winter 2010 Quarter: teaching Precalculus II (Math& 142) at North Seattle Community College, and the on line section of the Intensive Algebra Course (Math 99 N1) at Shoreline Community College
- Fall 2009 Quarter: teaching Precalculus I (Math& 141) and Precalculus II (Math& 142) at North Seattle Community College, and the on line section of the Intensive Algebra Course (Math 99 N1) at Shoreline Community College
- Summer 2009 Quarter:teaching Introduction to Statistics (Math 109), and Calculus I (Math& 151) at

North Seattle Community College.

- Spring 2009 Quarter: teaching Intermediate Algebra (Math 98)) at North Seattle Community College, and the on line section of the Intensive Algebra Course (Math 99 N1) at Shoreline Community College
- Winter 2009 Quarter: teaching Precalculus I (Math& 141) at North Seattle Community College, and the on line section of the Intensive Algebra Course (Math 99 N1) at Shoreline Community College
- Fall 2008 Quarter: teaching Elementary Algebra (Math 97) at North Seattle Community College, and the on line section of the Intensive Algebra Course (Math 99 N1) at Shoreline Community College
- 2008 2009: extension lecturer for the Math N98 distance learning class at the UW, for the UW Educational Outreach program
- Spring 2008 Quarter: teaching College Algebra (Math 102) at North Seattle Community College, and the on line section of the Intensive Algebra Course (Math 99 N1) at Shoreline Community College
- Winter Quarter 2008: teaching Algebra (Math 102) at North Seattle Community College, a classroom section, and the on line section of the Intensive Algebra Course (Math 99 S5 and N1) at Shoreline Community College
- Fall Quarter 2007: teaching a classroom section and the on line section of the Intensive Intermediate Algebra course (Math 99 S2 and N1) at Shoreline Community College
- Winter and Spring Quarter 2007: teaching the on line section of the Intensive Intermediate Algebra course (Math 99-N1) at Shoreline Community College
- Fall Quarter 2006: teaching the on line class on Intensive Intermediate Algebra (Math 99-N1), and the on line class on Precalculus (Math 110-N1) at Shoreline Community College
- Summer Quarter 2006: teaching two sections of Math 384 (Advanced Calculus) at the University of Washington
- Fall Quarter 2005 to Spring Quarter 2006: teaching fully on-line class on Intermediate Algebra (Math 99-N1) at Shoreline Community College.
- Spring 2006 to Summer 2007: teaching the on line section of Math 124 DL for the Educational Outreach at the University of Washington
- Summer Quarter 2005: teaching a class in Probability (Probability 1, Math 394) at the University of Washington, Seattle.
- Spring Quarter 2005: teaching a class in Linear Algebra (Math 204) at Western Washington University; and a class on Intermediate Algebra (Math 99) at Shoreline Community College.
- Winter Quarter 2005: teaching a class on Intermediate Algebra (Math 99) at Shoreline Community College.
- Summer Quarter 2004: teaching two classes, on Statistics and Probability, (Math 240 and Math 341) at Western Washington University
- Spring Quarter 2004: teaching a class on Linear Algebra (Math 204) at Western Washington University
- Winter Quarter 2004: teaching two classes, on Calculus and Business Math (Math 125 and 156) at Western Washington University.
- Fall Quarter 2003: teaching two classes, on Introduction to Differential Equations (Math 331), and Partial Differential Equations and Fourier Series (Math 430) at Western Washington University.
- Summer 2002: teaching two classes, on Introduction To Differential Equations (Math 307), and Introduction To Linear Algebra (Math 308) at the University of Washington.
- Summer 2001: teaching a class on Introduction To Differential Equations at the University of Washington (Math307)
- Autumn and Winter Quarters 2000/2001: teaching a class on Introduction To Differential Equations at the University of Washington (Math 307)
- 1986-87: teaching an undergraduate Calculus class in the first semester, and a graduate class (Stochastic Modeling) in the second semester at Iowa State University.

#### **Other Teaching Activities in Europe**

- 1999-2000: graduate course in stochastic processes and applications for the Ph.D. program in Milan and the Master's program SAMI in Milan.
- 1998: teaching a course on Introduction to Stochastic Processes for Financial Applications in the *CORIPE* Masters in Finance program, Moncalieri (Torino).
- 1997-2003: teaching graduate classes in the Mathematical Statistics Ph.D. joint program of the Universities of Pavia, Milan and *Bocconi*, and the Polytechnic schools in Milan and Turin.
- 1993-1997: teaching graduate classes in the Pure Mathematics Ph.D. program in Milan (a joint program of the Polytechnic of Milan, the University of Milan, the Catholic University in Brescia, the University of

Pavia, the University of Trieste).

- 1991-92 and 1992-93: teaching classes on Stochastic Differential Equations to students in the joint PhD program of the Universities of Genoa, Turin and the Polytechnic of Turin.
- In 1991-92 classes in Probability and Statistics to Computer Science students in the newly founded University of Alessandria (Italy).
- 1987-88 and 1988-89: giving guest seminars at the school in Control Theory (stability and bifurcation).
- 1977-78 to 1981-2 and 1985-86: teaching classes in postgraduate schools organized by the University of Rome *La Sapienza*: for two years in the Physics school (classes on classical dynamical systems and on stochastic processes), for three years in the school on System Theory (classes on stochastic processes and applications) and one in the school on Reliability (classes on the theory of point processes).

#### **Organizational Positions**

- 1993-2003: Principal investigator in several national research programs, funded by agencies of the Italian government (see the section on grants)
- 1997-2003: member of the teaching committee of the Mathematical Statistics Ph.D. joint program of the Universities of Pavia, Milan and Bocconi, and the Polytechnic schools in Milan and Turin.
- 1990-2002: member of and/or presiding promotion and hiring committees, at the national and local level in Italy.
- 1997-2003: member of the teaching committee of the Mathematical Statistics Ph.D. joint program of the Universities of Pavia, Milan and Bocconi, and the Polytechnic schools in Milan and Turin.
- 1993-1997: member of the teaching committee of the Pure Mathematics Ph.D. program in Milan (a joint program of the Polytechnic of Milan, the University of Milan, the Catholic University in Brescia, the University of Pavia, the University of Trieste).

#### **Visiting Positions**

- September 2007- Visiting Scholar at the University of Washington
- September 2003- June 2005: Visiting Professor at Western Washington University
- March 2002-2006: Visiting Scholar at the University of Washington
- September 2000-February 2001: Visiting Professor at the University of Washington.
- 1984-2000: Frequent visitor for periods from two weeks to three months of several research institutions in the USA, Canada, and Europe: the Laboratory of Mathematical Biology of the National Cancer Institute at the National Institutes of Health in Bethesda, Md., the Département de Mathématiques of the Université de Montréal, the Department of Mathematics of the University of Wisconsin at Madison, the Department of Mathematics of Iowa State University, the Department of Mathematics of the University of North Carolina at Charlotte, the EES&OR Department at Stanford University, the Department of Mathematics of the École Polytéchnique (Palaisaux, France), INRIA (Nice, France), Department of Mathematics of the University of Bremen (Germany), etc.
- August 1986-May 1987: Visiting Professor at Iowa State University.
- Fall/Winter 1984-85: Honorary Fellow at the Department of Mathematics of the University of Wisconsin at Madison, and visitor at the Courant Institute of the New York University. Both visits were funded by the NATO Senior Fellowship Scheme.
- October 1, 1980-May 31, 1981: Visiting Scholar at the Department of Mathematics of Northwestern University in Evanston, Ill., on a leave of absence from Rome, funded by a NATO Senior fellowship and by the <u>C.N.R</u>.
- Winter 1976: three weeks in Moscow, visiting the Steklov Institute, under an agreement between the Academy of Sciences of the USSR and the Accademia Nazionale dei Lincei (Italy).

#### **MEETINGS ORGANIZED**

- Organizer of a single-day meeting on *Exotic Stochastic Processes*, Polytechnic of Milan, April 1997 (funded by local grants).
- Organizer of the International Workshop on *Simulation and Statistical Issues in Stochastic Processes*, September Cremona, Italy, 1996 (funded by a grant from the Ministry for Scientific Research in Italy).
- Member of the Organizing Committee of the SIAM Meeting on Simulation and MonteCarlo Methods, held in San Francisco, August 4-6, 1993, where I also coordinated a mini-symposium on the simulation of Stochastic Differential Equations.
- Co-organizer of an international workshop on random trees and applications, held in Turin in June 1993, with participants from Canada, France and Italy.
- Organizer of an international workshop on recent mathematical results in the theory of filtering of random processes. Participants came from the USA, France, and Italy. The meeting was funded by the University of Turin and the CNR (Turin, June 28 and 29, 1991)
- Organizer of an international workshop on Mathematical and Applied Aspects of Computer Simulation of Random Processes (May 21-24 1990, in Portofino, Italy). Participants came from the USA, Canada, several European countries, and Italy. The CNR and other agencies provided funding.

#### GRANTS

2010 – 2011 OCL Project organized by the SCCTS of Washington State, with a grant from the Bill and Melinda Gates Foundation, to develop a course *Introduction to Statistics*, in digital form, to be published in Summer 2011 under a CC-BY license, with a maximum required cost to students of \$30.

During my tenure as an Italian academic, I have been part, as principal investigator (*coordinator* in Italian terminology) or participant in several research projects, funded by various agencies:

2000-2003	Italian Ministry for University and Scientific research (MURST) matching fund national program ( <i>Statistics and Probability</i> ), local project (University of Pavia and Politecnico di Milano)
1999-2000	Italian Ministry for University and Scientific research (MURST) matching fund national program ( <i>Stochastic Processes</i> ), local project (Politecnico di Milano)
1998-2000	Italian Ministry for University and Scientific research (MURST) matching fund national program ( <i>Stochastic Processes</i> ), local project (Politecnico di Milano)
1998-2002	CNR (Italian Consiglio Nazionale delle Ricerche) research contract, coordinating a team of 19 researchers from IAMI-CNR, IEN-CNR, and several universities nationwide, on applications of stochastic processes to industrial reliability.
1996-2003	Politecnico di Milano: local research grants on probability and statistics
1995-1996	Italian Ministry for University and Scientific research (MURST) coordinator of a Local Project (Politecnico di Milano, research on probability and statistics)
1994-1998	CNR research contracts, coordinator of research on applications of stochastic analysis to industry and environment and participant in other research units of other projects.
1994-1997	CNR: participant in a research contract on application of stochastic analysis to problems in biology and medicine.
1993-1994	CNR research contract, coordinator of a research on applications of stochastic analysis to biomedical problems.
1992-1994	Italian Ministry of University Affairs and Scientific Research National Projects ( <i>National Group</i> on Stochastic Dynamical Systems). National coordinator of the project.
1990-1993	Italian Ministry of University Affairs and Scientific Research Local Projects (University of Turin: general mathematical projects)
1988-1992	CNR Special Project on Applied Mathematics - Subproject on Probability and Statistics (coordinator of the local Genoa unit)
1987-1990	Italian Ministry of University Affairs and Scientific Research Local Projects (University of Genoa: Probability, Statistics, and Software)
1986-1988	CNR Special Project on <i>Statistics of Random Processes</i> (coordinator of the local Rome unit).
1984-1985	CNR: Coordinator of a Research Contract on <i>Applications of Probability Theory and Statistics</i> .
1981-1991	Italian Ministry of Public Education/Italian Ministry of University Affairs and Scientific Research
1701 1771	National Projects ( <i>National Group on Stochastic Dynamical Systems</i> )
1981-1987	Italian Ministry of Public Education Local Projects (University of Rome: various themes)
	5

# 1978-1990 Italian National Council of Research (CNR): *Special Project on Oncology* and Agreement with the NIH in Bethesda, MD.

## **Research Activity**

Since 1978 I have worked on Probability Theory, Statistics, and Stochastic Probability. Before that, I worked on problems in Dynamical Systems. I have collaborated with several colleagues from the USA, Italy, and Europe, resulting in 38 research papers, most published in scholarly journals, as well as several instructional publications. A list of publications, detailing my activities is attached.