

UNIVERSITÀ
DEGLI STUDI
DI PADOVA

PhD School in Statistics

The PHD School at a glance



DIPARTIMENTO
DI SCIENZE
STATISTICHE



UNIVERSITÀ
DEGLI STUDI
DI PADOVA

PhD School in Statistics

❖ Introduction to the PhD in Statistics at the University of Padova

- Professor Alessandra Salvan, Director of the PhD School

❖ Meet the School Staff & first year instructors

- Erich Battistin, School Vice-Director, Professor of Statistics & Economics
- Marco Ferrante, Professor of Probability
- Giulia Treu, Professor of Mathematical Analysis
- Alessandra Salvan, Professor of Statistics
- Monica Chiogna, Professor of Statistics
- Luigi Pace, Professor of Statistics, University of Udine

❖ Take a tour of Santa Caterina Campus

❖ Meet current & former students

- to get advice on applications, entrance, examination, careers opportunities



UNIVERSITÀ
DEGLI STUDI
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PhD School in Statistics

Established in 1984 and among the first PhD programmes in Italy

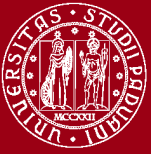
The PhD objectives

- to develop a comprehensive expertise in statistics
- master theoretical tools
- gain substantive exposure to applications
- prepare to a career in research or as highly professional statisticians in Italy or abroad at Universities or other institutions.

The consortium

- Department of Statistics
University Ca' Foscari of Venice
- Department of Statistical Sciences
University of Udine
- Department of Economics, Business,
Mathematics and Statistics
University of Trieste
- Department of Statistical Sciences
University Cattolica del Sacro Cuore, Milan





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PhD School in Statistics

Our philosophy

- ❖ *The School aims at selecting the best candidates from all over the country, as well as from abroad*
- ❖ *Continuous assessment and strong encouragement*
- ❖ *We foster collaboration internally and externally*
- ❖ *Lectures given by leading experts*
- ❖ *Strong tradition in training to research*
- ❖ *International perspective*

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**School evaluation by an external and international
Scientific Committee
2009 evaluation summary:**



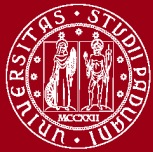
UNIVERSITA' DEGLI STUDI DI PADOVA
Servizio Formazione alla Ricerca

COMBINED EVALUATION OF PROFESSORS TOMASSINI, CUBBADA AND YOUNG OF PH.D. SCHOOL IN
STATISTICAL SCIENCES, UNIVERSITY OF PADOVA

Table for the evaluation of each paragraph of the self-assessment report: for each item, assign a grade
choosing from "Excellent", "Very good", "Good", "Satisfactory" or "Unsatisfactory", on the basis of the
criteria specified in the abovementioned point 2.

	Grade	Comments
Quality of the training aims	Excellent	
National and international collaborations with Academic partners	Excellent	
National and international collaborations with non Academic partners	Good	
Research funds of the teaching staff	Very Good	
School funds availability	Very Good	
Spaces and instruments of the School	Excellent	
Relevance of the research areas	Excellent	

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2009 evaluation summary:



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	Grade	Comments
Teaching staff publications	Excellent	
PhD students publications	Excellent	
Quality of the courses/seminars of the School	Excellent	
PhD students training activities outside the University of Padova	Excellent	
Relevance of the PhD students teaching activities to the training aims	Excellent	
Vocational and academic recruiting	Excellent	



UNIVERSITÀ
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Our location

Campus



Offices and lecture rooms



Library



Computer lab



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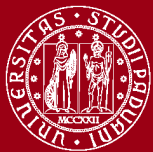
Our Faculty

• **School Board:**

Alessandra Salvan (Univ. of Padova) - School Director
Erich Battistin (Univ. of Padova) - Vice Director
Fausta Ongaro (Univ. of Padova) - Head of Department
Monica Chiogna (Univ. of Padova)
Gianpiero dalla Zuanna (Univ. of Padova)
Marco Ferrante (Univ. of Padova)
Carlo Gaetan (Univ. Ca' Foscari Venezia)
Luigi Pace (Univ. of Udine)
Enrico Rettore (Univ. of Padova)
Alessandro Rosina (Univ. of Milano Cattolica)
Susanna Zaccarin (Univ. of Trieste)

• **Other Teaching Staff & Supervisors:**

Ruggero Bellio (Univ. of Udine), Silvano Bordignon (Univ. of Padova),
Adriana Brogini (Univ. of Padova), Stuart George Coles (Univ. of Padova),
Giovanni Fonseca (Univ. of Udine), Fortunato Pesarin (Univ. of Padova),
Irene Poli (Univ. Ca' Foscari of Venezia), Luigi Salmaso (Univ. of Padova),
Bruno Scarpa (Univ. of Padova), Nicola Torelli (Univ. of Trieste),
Nicola Sartori (Univ. of Padova), Giulia Treu (Univ. of Padova),
Laura Ventura (Univ. of Padova), Susanna Zaccarin (Univ. of Trieste)



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Our Faculty

- **External collaborations:**

Alan Agresti (Univ. of Florida, USA)

Anthony C. Davison (Univ. of Lausanne, CH)

Denis Bosq (Université Pierre et Marie Curie, Paris VI)

George Casella (Univ. of Florida, USA)

Gauri S. Datta, University of Georgia, USA)

Michael Greenacre (Universitat Pompeu Fabra, Barcelona)

Brunero Liseo (Univ. of Rome La Sapienza)

Ricardo Antonio Maronna (Universidad Nacional de la Plata, Argentina)

Guido Masarotto (Univ. of Padova)

Donald A. Pierce (Oregon State University, USA)

Alberto Roverato (Univ. of Bologna)

Donald Rubin (University of Harvard, USA)

Peter Song (University of Michigan, USA)

Andrea Tancredi (Univ. of Rome La Sapienza)

Davide Vittone (Univ. of Padova)

Matt Wand (University of Wollongong, Australia)

... and many others over the years!





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PhD School in Statistics

Our PhD Students

Cycle

XXV

Ricardo Alvarado
Euloge Clovis Kenne Pagui
Marina Marzovilli
Elena Claudia Meroni
Federico Rotolo
Manuela Scioni
Enrico Tonini

XXIV

Antonio Canale
Riccardo De Bin
Nicola Lunardon
Marlies Ranieri
Davide Risso
Monjed Samuh
Francesca Solmi

XXIII

Michele De Nadai
Nicola Soriani
Marco Scutari
Anthony Wanjoya
Slavica Zec

XXII

Vanna Albieri
Nicola Barban
Francesco Bertoluzzo
James Mbugua Ciera
Nadia Frigo
Daniele Franceschi
Susanna Ragazzi
Laura Villanova

Supervisors

Bruno Scarpa
Nicola Sartori
Laura Ventura
Alessandra Salvan
Monica Chiogna
Fortunato Pesarin
Fortunato Pesarin

Erich Battistin, Enrico Rettore
Ruggero Bellio, Susanna Zaccarin
Adriana Brogini
Nicola Torelli
Erich Battistin, Enrico Rettore

Alberto Roverato
Gianpiero Dalla Zuanna
Fortunato Pesarin
Bruno Scarpa
Marco Ferrante
Marco Ferrante
Luigi Salmaso
Irene Poli





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PhD School in Statistics

An international programme

- ◆ *Foreign students are welcome*
- ◆ *Lectures in English*
- ◆ *Thesis in English or in Italian*
- ◆ *Co-supervisors from foreign Universities*
- ◆ *Periods abroad*
- ◆ *European PhD label*





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Our topics

Statistical methodology and its applications

Statistical models, inference, computational issues.
Applications in technology, finance, biology, medicine,
environmental studies, ...

Statistical and econometric methods

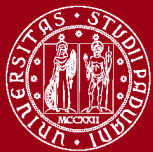
Time series analysis, forecasting, statistical methods for
labour economics and evaluation of public policies, ...

Social statistics

Survey methodology, models for individual and
aggregated data, segmentation techniques, multilevel
models, ...

Demography

Population structure and dynamics, statistical analysis of
demographic behaviours and policies, ...



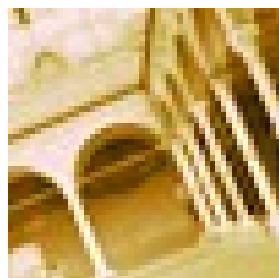
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PhD School in Statistics



***Students having completed a
PhD in Statistics in Padua***

now work at



***Universities
(in Italy and abroad)
76%***



***Research institutes
Statistical offices
18%***



DIPARTIMENTO
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PhD School in Statistics

Admission (Italian and foreign students)

1. Application

- ◆ Announcement are usually published in late Summer (deadline after 30 days)
- ◆ The number of positions available every year is set by the announcement (10 at most)
- ◆ Some positions (6 minimum) are covered by scholarship of about 13,600 euros per year for 3 years total
- ◆ Some scholarships are devoted to special subjects, defined in the announcement (in all other cases the research topic is free and to be defined by the end of the 1st year)

Hint

to increase your chances, apply both for free and for special topic scholarships!



PhD School in Statistics

Admission (Italian and foreign students)

2. Exam

A two-steps competition

◆ **First step**

- ◆ Ranking of candidates based on qualifications posted at the Department Notice Board and on the School website at least one week before the date of the written test.
- ◆ Qualifications include: undergraduate and/or master final mark, thesis, curriculum, scientific publications, list of examinations successfully passed and marks obtained, GRE, TOEFL.
- ◆ Having already been awarded the degree is not necessary for application, but it is necessary to obtain the **degree before the date of the written test**.

◆ **Second step**

- ◆ Written test, during Fall 2010 for the next edition. Details about the written examination (syllabus and questions in past admission exams), see http://www.stat.unipd.it/phd/admission_exams



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PhD School in Statistics

Admission (Italian and foreign students)

Background: Some basic background in probability and statistics is required, though candidates with degrees in different disciplines (such as mathematics, economics and social sciences) enter the School.

Visa: Candidates who need a Visa to enter Italy for the examination may ask the Research Training Office (formazione.ricerca@unipd.it) for an invitation letter. The Office can send the letter only once the candidate's application has been received. Hence, we suggest to send the application and ask for the letter immediately after publication of the competition announcement.



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Special scholarships for foreign students

- In addition to the ordinary announcement and scholarships, the University of Padua, through the funding of the Fondazione Cassa di Risparmio di Padova e Rovigo (CARIPARO Foundation), offers special research fellowships for **foreign students**.
- These grants are awarded on the basis of qualifications only and do not require an entry examination.
- The total number of fellowships for all Schools at the University of Padua, 2010—2012, was **15**.
- These scholarships include all University fees, **full board** at the University accommodation and provide an additional personal scholarship of about 13,600.00 per year for a total of 3 years.
- For courses that will start in January 2011, the announcement will be published presumably in Spring 2010. See <http://www.unipd.it/en/doctorates/grants.htm>.



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First year programme: courses

Core courses:

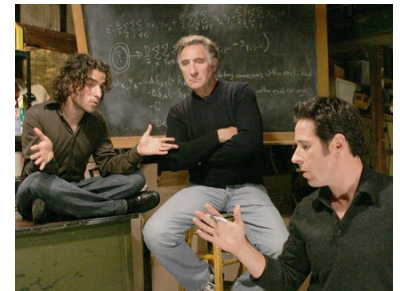
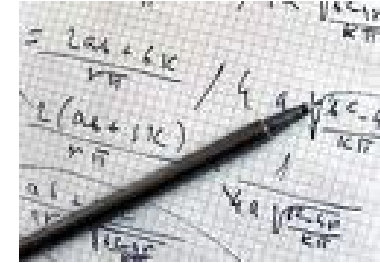
- ◆ Functional Analysis (G. Treu), January-February
- ◆ Probability Theory (M. Ferrante) January-February
- ◆ Theory and Methods of Inference (A. Salvani) March-May
- ◆ Statistical Models (M. Chiogna) May-October
 - Applied Multivariate Techniques
 - Generalized Linear and Mixed Models
 - Time Series Models
 - Nonparametric Methods

Specialist courses: (topics vary from one year to another)

Survival analysis, Computational Techniques, Robust Methods, Models for Longitudinal and Clustered Data, Models for Measurement Error, Nonparametric and Semiparametric Methods, Causal Inference and Observational Studies, ...

Side objectives:

To train students to computational abilities, team work, seminar presentations and paper preparation.





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PhD School in Statistics

Second and third year: research and thesis

- Aimed at achieving independent research abilities.
- Doctoral students have a certain freedom in the definition of their research theme. They can either join local research groups or start an independent research project, also taking advantage of national and international collaborations of the School.
- During the second and third year, up to 18 months can be spent at a University or other highly qualified institutions abroad.
- The School strongly encourages students to include in their programme a period of research abroad, using the national and international collaboration networks.



- The **grant is augmented by 50%** for the whole period spent **abroad**. In addition, the School contributes to travel and, subject to budget availability, to living expenses.





PhD School in Statistics

Obtaining the the PhD degree



Intermediate steps

- ◆ admission to second year (first-year exams)
- ◆ submit a research project (end of first year)
- ◆ project approval and assignment of supervisor admission to third year based on research results and seminar presentation
- ◆ admission to the final exam (or ask for a delay, maximum 24 months) based on thesis draft and seminar

Final exam

- ◆ The PhD thesis has to be discussed in front of a thesis defence jury consisting of Italian and foreign experts on the thesis topic
- ◆ The final evaluation by the exam committee will take into account external reviews if the candidate has applied for the Doctor Europaeus designation.
- ◆ If the exam is failed, the candidate can repeat it only once



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PhD School in Statistics

If you need any advice, please write to:

dottorato@stat.unipd.it

Phone: +39 049 8274161

For updates: <http://www.stat.unipd.it/phd>

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Questions and answers



Here to answer any questions about what you heard today,

This afternoon at 14.30:

Sofia Massa (PhD in 2008)

Manuela Cattelan (PhD in 2009)

Riccardo De Bin (Second year PhD student)

Marlies Ranieri (Second year PhD student)

Davide Rizzo (Second year PhD student)