

# Emanuele Guidotti

PHD STUDENT · PARTNER AT ALGO FINANCE SAGL

Neuchâtel, Switzerland

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## Skills

**DevOps** EXCELLENT: Wordpress · INTERMEDIATE: Google Cloud Platform  
**Programming Languages** EXCELLENT: R · ADVANCED: Python, C++, SQL, PHP, HTML · INTERMEDIATE: XML, CSS · BASIC: Javascript, jQuery, AJAX  
MOTHER TONGUE: Italian · FLUENT: English (level C1)

## Experience

### University of Milan

ADJUNCT PROFESSOR

Milan, Italy

2019 - Now

- Courses: "Text Mining and Sentiment Analysis" and "Coding for Data Science and Data Management". Master in Data Science and Economics.

### Algo Finance Sagl

PARTNER

Lugano, Switzerland

May 2018 - Now

- Software house start-up developing financial algorithms for the asset management industry.

### The YUIMA Project

MEMBER

Tokyo, Japan

2016 - Now

- International academic research team mainly composed by mathematicians and statisticians. The Project is supported by the Japan Science and Technology Agency CREST.

### WhatsOut Srl

FOUNDER

Milan, Italy

Jun. 2018 - Feb. 2019

- Innovative start-up based on the AI enhanced [web application](#) I designed and developed.

### University of Milan

TEACHING ASSISTANT

Milan, Italy

2017 - 2018

- Course: "Mathematics". Bachelor in Social and Political Sciences.

### University of Tokyo

VISITING SCHOLAR

Tokyo, Japan

Jan 2017, May, Nov and Dec 2018

- Working with the YUIMA Team. Statistical research.

### Voices from The Blogs

DATA SCIENTIST

Milan, Italy

2017 - 2018

- Collaborating with Voices from the Blogs, start-up dealing with Big Data Analysis, Deep Learning, Machine Learning and Sentiment Analysis.

## Education

### University of Neuchâtel

PHD IN FINANCE

Neuchâtel, Switzerland

Mar. 2019 - Now

- Favourite courses:
  - *Swiss Program for Beginning Doctoral Students in Economics (Econometrics Sequence)*, Study Center Gerzensee, Switzerland.
  - *Empirical Asset Pricing*, Ecole Polytechnique Fédérale de Lausanne, Switzerland.
  - *Machine Learning in Finance*, Politecnico di Milano, Italy.
  - *Academic Writing Conventions and Style*, University of Neuchâtel, Switzerland.
  - *Smart Analytics, Machine Learning, and AI on GCP, Google Cloud, Coursera (online)*.
  - *Applied Text Mining in Python, University of Michigan, Coursera (online)*.

### Voxcom Language and Communication Training

PROFESSIONALLY SPEAKING

Milan, Italy

Mar. 2017

- 2-day, full-time training course in presentation and communication skills. Voxcom generally runs this training for C-level managers and specialist professionals.

## University of Milan

Milan, Italy

MSC IN ECONOMICS AND FINANCE - QUANTITATIVE FINANCE

2015 - 2017

- Final grade: 110/110 cum laude.
- Thesis: *yuimaGUI: an Interactive Platform for Computational Finance*. The Platform I developed is available [online](#) and has been presented at several international conferences about Statistics, R programming and Finance.
- Favourite courses:
  - *Numerical and Statistical Methods for Finance*.
  - *Databases* (Department of Informatics).
  - *Data Models and DBMS of New Generation* (Department of Informatics).
  - *Data Mining and Computational Statistics*.
  - *Time Series Analysis*.
  - *Risk Theory*.

## University of Milan

Milan, Italy

BSC IN PHYSICS - GENERAL PHYSICS

2012 - 2015

- Final grade: 110/110 cum laude.
- Thesis: *Option Pricing: Black-Scholes and Lévy dynamics*.
- Favourite courses:
  - *Computational Methods for Physics*.
  - *Numerical Treatment of Experimental Data*.
  - *General Relativity*.
  - *Quantum Mechanics*.
  - *Electromagnetism*.
  - *Calculus I, II and III*.

## High School Luigi Cremona

Milan, Italy

HIGH SCHOOL DIPLOMA OF SCIENCE

2007 - 2012

- Final grade: 100/100.

## Rotary International

Milan, Italy

ROTARY YOUTH LEADERSHIP AWARDS

Mar. 2011

- Leadership program coordinated by Rotary Clubs around the globe. Participants are chosen for their leadership potential.

# Honors & Awards

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## SCHOLARSHIPS

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|------|-------------------------------------------------------------------------------------------------------------|--------------|
| 2017 | <b>University Scholarship Pirelli</b> , Awarded to the top 25 students among Pirelli employees' children.   | Milan, Italy |
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| 2015 | <b>University Scholarship Pirelli</b> , Awarded to the top 25 students among Pirelli employees' children.   | Milan, Italy |
| 2014 | <b>University Scholarship Pirelli</b> , Awarded to the top 25 students among Pirelli employees' children.   | Milan, Italy |
| 2013 | <b>High School Scholarship Pirelli</b> , Awarded to the top 140 students among Pirelli employees' children. | Milan, Italy |
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# Talks

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## International Conference on Computational and Methodological Statistics

London, UK

SPEAKER

Dec. 2019

- Towards Coding of the Asymptotic Expansion Formula in YUIMA

## YUIMA Summer School on Computational and Statistical Methods for Stochastic Process

Brixen, Italy

LECTURER

July 2019

- The 4 days course aims at introducing researchers, PhD students and practitioners to several aspects of modern numerical and statistical analysis of time series through the R language and, in particular, the YUIMA package.

## European Meeting of Statisticians

Palermo, Italy

SPEAKER

July 2019

- Towards Coding of the Asymptotic Expansion Formula in YUIMA

## YUIMA Conference

Rome, Italy

SPEAKER

May 2018

- RblDataLicense: R Interface to "Bloomberg Data License"

## Seminar at the University of Tokyo, Mathematical Sciences

SPEAKER

- Latest development in the R-package YUIMAGUI

*Tokyo, Japan*

*May 2018*

## International Conference on Computational and Methodological Statistics

SPEAKER

- The Yuima framework for simulation and inference of stochastic processes and its GUI

*London, UK*

*Dec. 2017*

## Annual Meeting of the Association for Mathematics Applied to Social & Economic Sciences

SPEAKER

- yuimaGUI: a Graphical User Interface for the yuima package

*Cagliari, Italy*

*Sep. 2017*

## R/Finance Conference

SPEAKER

- yuimaGUI: interactive platform for computational finance

*Chicago, USA*

*May. 2017*

## Seminar at the University of Tokyo, Mathematical Sciences

SPEAKER

- yuimaGUI: a Graphical User Interface for the yuima package

*Tokyo, Japan*

*Jan 2017*

## International Conference on Computational Statistics

SPEAKER

- yuimaGUI: a Graphical User Interface for computational finance based on the yuima R package

*Oviedo, Spain*

*Aug 2016*

## Papers

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### RblDataLicense: R Interface to “Bloomberg Data License”

AUTHOR

- Working paper. <https://doi.org/10.13140/RG.2.2.23216.71680>

*ResearchGate*

## R-packages

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### Calculus: High Dimensional Numerical and Symbolic Calculus in R

AUTHOR

- Efficient C++ optimized functions for numerical and symbolic calculus. It includes basic symbolic arithmetic, tensor calculus, Einstein summing convention, fast computation of the Levi-Civita symbol and generalized Kronecker delta, Taylor series expansion, multivariate Hermite polynomials, accurate high-order derivatives, differential operators (Gradient, Jacobian, Hessian, Divergence, Curl, Laplacian) and numerical integration in arbitrary orthogonal coordinate systems: cartesian, polar, spherical, cylindrical, parabolic or user defined by custom scale factors.

*CRAN - GitHub*

*Nov 2019*

### RblDataLicense: R Interface to “Bloomberg Data License”

AUTHOR

- As the technology infrastructure increases in sophistication, Bloomberg released the Data License service, the platform that delivers Bloomberg’s datasets. For the first time, users can directly program against Bloomberg’s comprehensive historical data, servicing the growing needs of data science. The RblDataLicense package aims at providing a user-friendly R interface to the Data License service. As a prerequisite, a valid Data License from Bloomberg is needed. This software and its author are in no way affiliated, endorsed, or approved by “Bloomberg” or any of its affiliates. “Bloomberg” is a registered trademark.

*CRAN - GitHub*

*May 2019*

### yuimaGUI: a Graphical User Interface for the “yuima” Package

AUTHOR

- Provides a graphical user interface for the yuima package: open source academic project aimed at developing a complete environment for estimation and simulation of Stochastic Differential Equations and other Stochastic Processes.

*CRAN*

*Jan 2017*