

# Luigi Carratino

PHD IN MACHINE LEARNING

DIBRIS - Università degli Studi di Genova · Via Dodecaneso, 35 - 16146 Genova, Italy

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## Education

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### DIBRIS - Università degli Studi di Genova

Genova, Italy

PHD IN MACHINE LEARNING

Nov. 2016 - PRESENT

- Topic: "Resource Efficient Large-Scale Machine Learning"
- Advisor: Prof. Lorenzo Rosasco

### Università degli Studi di Genova

Genova, Italy

MASTER IN COMPUTER SCIENCE

2014 - 2016

- Thesis: "Online Learning Approaches to Dynamic Pricing in a Partial Monitoring Setting"
- Advisors: Prof. Rui Castro, Prof. Lorenzo Rosasco
- Final score: 110/110 cum Laude

### Università degli Studi di Genova

Genova, Italy

BACHELOR IN COMPUTER SCIENCE

2011 - 2014

- Thesis: "Iterative Methods for Sparse Learning"
- Advisors: Prof. Silvia Villa, Prof. Lorenzo Rosasco
- Final score: 110/110

### SHORT VISITING POSITIONS

#### Eindhoven University of Technology

Eindhoven, Netherlands

VISITING RESEARCHER

Feb. 2016 - Jul. 2016

## Publications

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### Learning with SGD and Random Features

L. Carratino, A. Rudi, L. Rosasco — *Advances in Neural Information Processing Systems (NIPS)* [SPOTLIGHT], 2018

<https://arxiv.org/abs/1807.06343>

### On Fast Leverage Score Sampling and Optimal Learning

A. Rudi, D. Calandriello, L. Carratino, L. Rosasco — *Advances in Neural Information Processing Systems (NIPS)*, 2018

<https://arxiv.org/abs/1810.13258>

### FALKON: An Optimal Large Scale Kernel Method

A. Rudi, L. Carratino, L. Rosasco — *Advances in Neural Information Processing Systems (NIPS)*, 2017

<https://arxiv.org/abs/1705.10958>

## Invited Talks and Poster Sessions

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### Algorithmic Regularization for Machine Learning

Poggio Lab, MIT, Cambridge, USA, Oct. 2018

### Stochastic Preconditioning for Optimal Large-Scale Machine Learning

SIMAI 2018 mini-symposium on Large Scale Optimization, Rome, Jul. 2018

### Fast and Optimal Kernel Methods for Large Scale Machine Learning

PhD & Faculty Seminars, DIBRIS - University of Genoa, May. 2018

### FALKON: An Optimal Large Scale Kernel Method

NIPS 2017 Poster Session, Dec. 2017

Tübingen MLSS Poster Session, Jun. 2017

## Teaching

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### Machine Learning

Genova, Italy

TEACHING ASSISTANT, MSC IN COMPUTER SCIENCE, UNIVERSITY OF GENOVA

Fall 2018 - Fall 2017

### Regularization Methods for Machine Learning

Genova, Italy

TEACHING ASSISTANT, PHD COURSE ON ADVANCED MACHINE LEARNING, UNIVERSITY OF GENOVA

18-22 Jun 2018

### Regularization Methods for Machine Learning @ SIMULA

Oslo, Norway

TEACHING ASSISTANT, PHD COURSE ON ADVANCED MACHINE LEARNING, SIMULA RESEARCH LABORATORY

02-06 May 2017

## Algorithms and Data Structures

TEACHING ASSISTANT, BSC IN COMPUTER SCIENCE, UNIVERSITY OF GENOVA

Genova, Italy

Spring 2017

## Introduction to Programming

TEACHING ASSISTANT, BSC IN COMPUTER SCIENCE, UNIVERSITY OF GENOVA

Genova, Italy

Fall 2016

## Scholarships & Awards

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Jun. 2016 **PhD Studentship** from University of Genova

Nov. 2015 **Master Thesis Abroad Scholarship** from University of Genova

Jun. 2015 **Microsoft Big Data & IoT Food Hackathon - EXPO 2015** Ranked first in Data Modeling challenge

## Services

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**Reviewer** JMLR, NIPS 2018

**Coorganizer** Regularization Methods for Machine Learning 2018 school, Genova, Italy

**Coorganizer** Regularization Methods for Machine Learning @ SIMULA 2017 school, Oslo, Norway

**Co-supervision** Bachelor student from University of Genova, Aug.- Sep. 2018

**Co-supervision** Intern Bachelor student from École Normale Supérieure (Paris), Jun.-Jul. 2018

## Skills

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**Programming Languages:** Advanced: MATLAB, PYTHON. Intermediate: C, C++. Basic: JAVA

## Languages

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**Italian:** Native

**English:** Fluent

## Extracurricular Activity

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### Diploma in Piano Performance

CONSERVATORIO NICCOLÒ PAGANINI

Genova, Italy

2003 - 2012