



## Daniele Patria

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### EDUCATION AND TRAINING

01/11/2021 – CURRENT – Rome, Italy

**PHD IN OPERATIONS RESEARCH** – Sapienza, University of Rome

09/2019 – 19/07/2021 – Rome, Italy

**MASTER DEGREE IN MANAGEMENT ENGINEERING** – Sapienza, University of Rome

**Thesis:** Using the Frontier Partitioner Algorithm to select pareto-optimal solutions of portfolio optimization

09/2020 – 02/2021

**ERASMUS+** – FH Salzburg

<https://www.fh-salzburg.ac.at/en/>

09/2016 – 24/10/2019 – Latina, Italy

**BACHELOR DEGREE IN INFORMATION ENGINEERING** – Sapienza, University of Rome

**Thesis:** A gray-box approach for the curriculum learning problem

09/2011 – 07/2016 – Latina, Italy

**SCIENTIFIC HIGH SCHOOL DEGREE** – Liceo scientifico G.B. Grassi

12/01/2015

**FIRST CERTIFICATE IN ENGLISH (B2)** – CAMBRIDGE ENGLISH Language Assessment

## ● LANGUAGE SKILLS

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Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>ENGLISH</b>	C1	B2	C1	B2	B2
<b>GERMAN</b>	A1	A1	A1	A1	A1
<b>SPANISH</b>	A1	A1	A1	A1	A1

*Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user*

## ● DIGITAL SKILLS

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Python | C | MATLAB | Gurobi Optimization | LaTeX | Linux | Ubuntu

## ● CONFERENCES AND SEMINARS

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14/09/2021 - Rome

### **Using the Frontier Partitioner Algorithm to select pareto-optimal solutions of portfolio optimization problems**

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In this talk, we deal with portfolio optimization problems considering the classical bi-objective model where we aim at maximizing the expected returns and minimizing the covariances of different eurostoxx financial assets, simultaneously. In the instances we consider, both the expected returns and the covariances are computed by averaging the data obtained during a timespan of 264 weeks (from 10-Mar-2003 to 24-Mar-2008 with one observation for each week). The variables are constrained to be integer so that we end up with a bi-objective integer nonlinear model that is addressed by a criterion space search algorithm, the Frontier Partitioner Algorithm (FPA). A comparison between FPA and the well-known epsilon-constraint method is shown considering instances of different sizes in terms of the number of assets taken into account.

<http://www.airoconference.it/ods2021/>

## ● HOBBIES AND INTERESTS

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### **AGESCI Italian Scout movement**

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I've been part of the Italian Scout association AGESCI for more than 10 years. This huge experience helped me in building strong relational and team working skills. In addition, I've joined important national and international events during which I encountered many different cultures; this allowed me to get a wider view on the world.

### **Guitar playing**

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I am a music enthusiast and I've been studying guitar for several years. I've also obtained two certifications in this matter: London College of Music, Electric Guitar, Level 5 and Level 7.