

MADDALONI ALESSANDRO

WORK EXPERIENCE

09/2020–present **Associate Professor (Maitre de conferences) in Optimization**

Telecom Sud Paris, Palaiseau (France)

- Teaching optimization master level courses
- Supervision of phd students

02/2020–08/2020 **Research Collaborator (Co.co.co)**

04/2021–12/2021

ICT-COISP, Scuola Superiore Sant'Anna, Pisa (Italy).

Application of neural networks, heuristics and constrained optimization techniques to analyze and improve industrial processes as those involved in the following projects:

- IREDUWEARGUID: Reduction of wear on guiding components in hot strip mill
- OMA: Online Microstructure Analytics
- DYNREACT: Refinement of production scheduling through dynamic product routing, considering real-time plant monitoring and optimal reaction strategies
- WHAM: Water and energy Hub Advanced Management system in steelworks

02/2014–01/2020 **Research Assistant (Assegnista)**

ICT-COISP, Scuola Superiore Sant'Anna, Pisa (Italy).

Application of neural networks, heuristics and constrained optimization techniques to analyze and improve industrial processes as those involved in the following projects:

- EvalHD: Refinement of flat steel quality assessment by evaluation of high-resolution process and product data.
- ICONSYS: Intelligent control station for improved quality management in flat steel production by a next generation decision support.
- PUC: Product Uniformity Control
- REFFIPLANT: Efficient use of resources in steel plants through Process Integration
- SOProd: Economic and flexible decentral self-optimising production
- GASNET: Optimization of the management of the process gases network within the integrated steelworks
- NEWREBAR: dual-phase steel Reinforcing Bars for enhancing capacity and durability of anti-seismic moment resisting frames
- PROMAS: Piattaforma Integrata Avanzata per la Progettazione di Macchine e Sistemi Complessi

-DYNERGYSTEEL: Integrated dynamic energy management for steel production.

-STECH: Smart Turbine Technologies.

-REDUWEARGUID: Reduction of wear on guiding components in hot strip mill

09/2013–01/2014 **Research Collaborator (Co.co.co)**

ICT-COISP, Scuola Superiore Sant'Anna, Pisa (Italy).

Application of optimization techniques for the project EvalHD: Refinement of flat steel quality assessment by evaluation of high-resolution process and product data.

Collaborator for the Italian Math Olympiad Project

- Preparing original exercises for the math competitions

-Teaching in stages for brilliant high school students all over Italy

08/2010–08/2013 **Phd researcher**

University Of Southern Denmark, Odense (Denmark)

-Production of original research paper

-Teaching university courses

EDUCATION AND TRAINING

09/2004–02/2008 **Bachelor degree in mathematics**

University of Pisa, Pisa (Italy) Grade: 106/100

02/2008–11/2009 **Master degree in mathematics**

University of Pisa, Pisa (Italy) Grade 110/100

08/2010–08/2013 **Phd in Computer Science**

University Of Southern Denmark, Odense (Denmark)

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
Danish	C1	C1	C1	C1	C1
French	C1	C1	C1	C1	B1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Communication skills -Good communication skills

-Good team working skills

Curriculum vitae

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|------------------------------------|---|
| Organisational / managerial skills | -Good organisational skills |
| Job-related skills | -Experience with computational geometry problems, like nesting, cutting stock, etc.
-Experience with network flows, NLP, LP, IP and MILP problems. |
| Computer skills | -Good command of C++, C#, Matlab and optimization libraries
-Good command of MS Office and Latex |