Riccardo **MILANI** | RESUME

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PhD, Mathematical Engineer

Education

since 2021 **Postdoctoral researcher** — CEREA - École des Ponts ParisTech

- SCIENCES^{2024} - the physics of sports
- Archery: Simulation of arrow flight under real-life conditions

2017 - 2020 **PhD Student in Applied Mathematics** — École des Ponts ParisTech, INRIA, EDF R&D

- *Compatible Discrete Operator* schemes for the unsteady incompressible Navier–Stokes equations
- Advisors: Ern Alexandre (ENPC, INRIA) and Bonelle Jérôme (EDF R&D)

2015 - 2017 **MSc in Mathematical Engineering** — Politecnico di Milano

- *Laurea Magistrale* in Mathematical Engineering, specialization: Applied Mathematics & Computer Sciences
- Score: 110 and honors/110

2013 - 2017 **Cycle of *Polytechnicien* Engineer** — École polytechnique

- Education cycle equivalent to BSc and MSc
- Specialization: Applied Mathematics - PDEs

2010 - 2015 **BSc in Mathematical Engineering** — Politecnico di Milano

- *Laurea Triennale* in Mathematical Engineering. Score: 110 and honors/110
- Awarded "Best freshman" (2010) after the results of the entry test and first semester exams

Experience

09/'16-02/'17 **Research Internship, 6 months** — EDF R&D, Chatou

- Development and numerical analysis of a 3D HHO method for anisotropic diffusion
- Integration within the industrial code *Code_Saturne* (C); parallelization by OpenMP

03-08/2015 **Research Internship, 5 months** — US ESI R&D, San Diego

- First steps into the development of a new method for a fast computation of the vibro-acoustic response of a system
- Validations against software simulations

Programming skills

- **Good knowledge**: C/C++, OpenMP, MPI, LaTeX, Unix systems, MATLAB, Git/SVN, *Code_Saturne*, Office
- **Basic knowledge**: Python, shell scripting, Fortran, FreeFem++, SALOME, Java, R

Languages

- **Italian**: Native
- **English**: Fluent, FCE certificate, B2
- **French**: Fluent, TCF certificate, C1
- **Russian**: Conversational level

Extracurricular activities

- Head of a 40-student dormitory ('15)
- General-treasurer of AIM ('16)
- PhD-students representative for EDF-MFEE ('18-'20)
- Running (Paris marathon '19)

Volunteering and other Interests

- Summer work camps (Kenya '10, '11; Rwanda '17')
- Active member of Smileland, which backs an orphans village in Congo
- Italian classes for refugees ('15)