

# Romina Mirdiona Papagni

## EDUCATION AND TRAINING

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### PhD in Industrial Chemistry and Chemical Engineering - II year

*Politecnico di Milano* [ 01/11/2022 – Current ]

City: Milan | Country: Italy

Bio-methane production from bio-methanation of renewable hydrogen: computational fluid dynamics (CFD) assisted design of bubble column reactors equipped with mechanical and hydrodynamic agitators.

### MSc in Chemical Engineering

*Politecnico di Milano* [ 09/2019 – 27/04/2022 ]

City: Milan | Country: Italy | Final grade: 110 cum laude, highest grade | Thesis: Hydrogen as domestic fuel in the energy transition process – numerical investigations on pre-mixed micro-perforated burners.

#### Projects developed during courses:

- "VOCs Odour Pollution Monitoring": group project realized during "Technologies for Safety in Energy and Oil&Gas Industry" course.
- "Hydrogen Peroxide: Intensification of the Auto-Oxidation Process": group project realized for "Process Intensification and Flow Chemistry" course.
- "Analysis of Hydrodesulfurization Lumped Kinetic Scheme": group project realized during "Petrochemical Industry Technologies and Processes" course
- "Numerical analysis of a lid-drive cavity": solo project realized during "Computational Fluid Dynamics of Reactive Flows" course.

### Bachelor of Science Degree in Chemical Engineering

*Politecnico di Milano*

City: Milan | Country: Italy | Final grade: 101 / 110 | Thesis: Combustione di surrogati per benzine in reattori ideali: raccolta dati sperimentali e convalida modello cinetico.

### High School Diploma - Linguistic High School

*Istituto di Istruzione Superiore Simone Weil* [ 2011 – 2016 ]

City: Treviglio (BG) | Country: Italy

## WORK EXPERIENCE

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### University teaching assistant

*Politecnico di Milano* [ 09/2023 – 12/2023 ]

City: Milan | Country: Italy

Teaching assistant for the Bachelor course "CALCOLI DI PROCESSO DELL'INGEGNERIA CHIMICA" at Politecnico di Milano, held in Italian during the first semester of a.y. 2023/2024.

The course deals with basic concepts of numerical calculus applied to chemical engineering and programming in Matlab. Main topics are:

1. Solution of linear systems
2. Function root-finding
3. Numerical integration
4. ODE
5. Optimization

The activity also concerned the preparation and correction of examinations.

### University tutoring activity

*Politecnico di Milano* [ 15/12/2022 – 08/02/2023 ]

City: Milan | Country: Italy

Additional lessons for university students enrolled at the course "MECCANICA DEI FLUIDI CON FONDAMENTI DI INGEGNERIA CHIMICA" held in Italian.

Explanation and solving of exam-like exercises concerning basic concept of fluid mechanics and transport phenomena. The goals was to help students in studying and consolidating the topics presented during the course, with particular emphasis on the application of physical principles.

## CONFERENCES AND SEMINARS

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[ 17/09/2021 – 21/09/2021 ] Berlin, Germany

**European Congress of Chemical Engineering and 7th European Congress of Applied Biotechnology** Oral Presentations:  
R.M Papagni, A. Cuoci, M. Mehl, G. Montante, A. Paglianti, S. Lillia, "CFD Modeling of Mass Transfer and Chemical Reaction in a Multiphase Stirred Tank Reactor."

[ 13/11/2021 – 20/11/2021 ] École nationale supérieure des mines de Paris - Mines ParisTech

**ATHENS Programme** Technology and Innovation Strategy

## LANGUAGE SKILLS

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**Mother tongue(s):** Italian

**Other language(s):**

**English**

**LISTENING C1 READING C1 WRITING C1**

**SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1**

**Spanish**

**LISTENING B2 READING B2 WRITING B2**

**SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2**

**French**

**LISTENING B2 READING B2 WRITING B2**

**SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2**

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

## DIGITAL SKILLS

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Operating Systems: MacOS - Windows / Microsoft Office/ Office 365 / Programming Language Matlab / CFD (OpenFOAM) / Python

## ORGANISATIONAL SKILLS

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**Task analysis and planning** Duty coordination and organization during working time as waitress in bars and restaurants.

## COMMUNICATION AND INTERPERSONAL SKILLS

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**Emotional Intelligence, sociability and confidence**

- Living and working with other people, in multicultural environments during summer educational trips with different associations in different European and non-European countries (Great Britain, USA, France, Spain).
- Teamworking as volleyball player in a team.
- Effective communication skills acquired helping middle school and high school students studying scientific subjects.

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*Autorizzo al trattamento dati ai sensi del GDPR 2016/679 del 27 aprile 2016 (Regolamento Europeo relativo alla protezione delle persone fisiche per quanto riguarda il trattamento dei dati personali). Autorizzo la pubblicazione del Curriculum Vitae sul sito istituzionale del Politecnico di Milano (sez. Amministrazione Trasparente) in ottemperanza al D. Lgs n. 33 del 14 marzo 2013 (e s.m.i.).*