

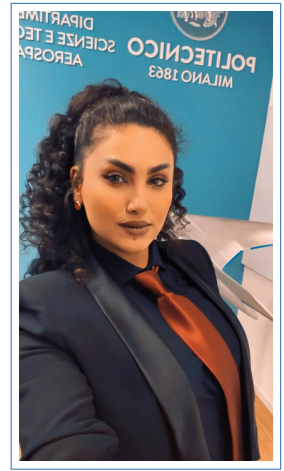
# Mina Golshan

Aerospace Engineer, Ph.D., Physicist, Fluid Dynamicist

Via Gioberti 18, 10128  
Turin, Italy

+393248053874

✉ mina.golshan@polimi.it



## Education

- Nov 2021–  
Jan 2023 **Politecnico di Milano, Ph.D.**, Aerospace Engineering: Title: Cloud Turbulence Microphysic at Interfaces: a DNS model with a phase change and droplet interaction, *Defence: 22/02/2023, Milan*  
Italy
- June 2017–  
Oct 2021 **Politecnico di Torino, Research Assistance**, Multiphase Turbulence Modelling and Droplet Interaction,  
*Turin*  
Italy
- May  
2015–April  
2017 **Payam Noor Tabriz University, Research Assistance**, Fundamental Quantum Theory, *Tabriz*  
Iran
- March  
2013–April  
2015 **Tabriz University, M.Sc.**, Fundamental Physics: Title: New potentials with the oscillator spectrum,  
*Defence: 20/02/2015, Tabriz*  
Iran
- May 2012–  
Feb 2013 **Shahid Madani Azarbaijan University, Research assistant**, Atomic/Nuclear Physics, *Tabriz*  
Iran
- Jan 2008–  
March 2012 **Shahid Madani Azarbaijan University, B.Sc.**, Atomic/Nuclear Physics, *Tabriz*  
Iran

## Work Experience

- 2020–2023 **Sales Manager, PICCO S.R.L.**, Exporting and Importing, *Automation and Instrumentation*  
Part time
- 2017–present **Personal Trainer (Fitness)**, *MacFit Gym, Turin, Italy*
- 2017–2023 **Swimming Coach, ESL Vigone swimming pool**, *TUrin, Italy*,
- 2017–2020 **Personal Trainer (Fitness)**, *Virgin Active, Turin, Italy*
- 2015–2017 **Teaching, Azad University**, Quantum Physics, *Tabriz, Iran*
- 2008–2017 **Karate Coach, Iran Karate Federation**, *Tabriz, Iran*
- 2006–2017 **Swimming Coach, Iran Swimming Federation**, *Tabriz, Iran*
- 3rd to 6th  
September  
2019 **Collaborating in organization: 17th European Turbulent Conference (ETC)**  
Politecnico di Torino

## Internships

- CINECA Super Computing Center**  
2018, Bologna, Italy
- CINECA Super Computing Center**  
2018, Rome, Italy
- CINECA Super Computing Center**  
2019, Rome, Italy

## **Regional Agency for Environmental Protection (ARPA)**


2019, Turin, Italy

## **National Institute of Metrological Research (INRIM)**


2022, Turin, Italy

---

## Achievements

 Research scholarship GESD project; Design and development of a green mechatronic remote sensing system suitable for carrying out the Lagrangian measurement of fluctuations in temperature, pressure, humidity, position, speed, acceleration within and at the edge of warm atmospheric clouds

2021-2023

 Full Marie Skłodowska-Curie Ph.D. scholarship; European Union's Horizon 2020 research and innovation programme (grant agreement no. 675675)

2017-2020

 Black belt in Karate (Dan 2), kumite, Shito-Ryu, Iran International Karateh Federation

2007-2017

 Third-degree swimming coach, Iran International swimming Federation


2005-to date

 Lifeguard, Iran International swimming Federation


2010-2017

 Synchronized swimming, Iran International swimming Federation

2008-2011

 Recreational or therapeutic swimming, Iran International swimming Federation

2012-2015

 Certified personal Trainer bodybuilding and fitness

2012-to date


---

## Languages

 Azeri (Mother language)

 Persian (Mother language)

 English

 Turkish

 Italian

---

## Computer Skills

MATLAB

MAPLE

Microsoft Excel

Microsoft Word

Microsoft PowerPoint

Microsoft Access

In-House Code Development: Fortran

---

## External Training

**Introduction to modern FORTRAN at CINECA Super Computing Center Bologna**

2018, CINECA, Bologna, Italy

**1st Training School on Atmospheric turbulence, convection, and clouds, introduction to Microphysics**

Politecnico di Torino, 2017, Turin, Italy

**1st spring School on clouds parametrization and climate models at ENS**

ENS, 2018, Paris, France

**2nd Summer School on Microphysics and Dynamics of Clouds at UFS**

UFS, 2018, Zugspitze, Germany

**3rd Workshop Training School on aerosols and cloud chemistry, Lagrangian experimental Measurements in turbulence. Atmospheric radio Sounds and RiDAR technology, Control sensor engineering at UW**

University of Warsaw, 2019, Warsaw, Poland

**3rd Summer School on Small-Scale Turbulence in Clouds on non-equilibrium statistical physics, Extreme events, and intermittency in fine-scale turbulence, Non-spherical particles in Turbulence, Sedimentation of non-spherical particles in Turbulence Lagrangian statistics of fluid particles in turbulence, Lab Tour, Introduction to 3-D printing with Nano Scribe, In situ measurements of cloud microphysics properties, Statistical models for particles in turbulence at Max Planck Institute for Dynamics and Self-Organization**

Max Planck Institute for Dynamics and Self-Organization, 2019, Göttingen, Germany

**4th Workshop and Training School on data and model integration in fluid mechanics**

Imperial College of London, 2019, London, England

### **Industrial Skills**

Politecnico Di Milano, 2021, Milan, Italy

### **Advances Tutorial course on TEX/L A TEX**

Politecnico Di Torino, 2020, Turin, Italy

### **Advances Tutorial course on Time management**

Politecnico Di Torino, 2020, Turin, Italy

### **Essential Tutorial course on Public Speaking**

Politecnico Di Torino, 2020, Turin, Italy

### **Tutorial course on Research integrity**

Politecnico Di Torino, 2019, Turin, Italy

---

## Publications

### **Intermittency acceleration of water droplet population dynamics inside the interfacial layer between cloudy and clear air environments**

Mina Golshan, Mattia Tomatis, Shahbozbek Abdunabiev, Federico Fraternali, Marco Vanni, Daniela Tordella, International Journal of Multiphase Flow, Volume 140, 103669, July 2021

### **Microphysical timescales and local supersaturation balance at a warm cloud top boundary**

Fossà, L., Abdunabiev, S., Golshan, M., Tordella, D., Physics of Fluids, 34(6), 067103, May 2022

### **Diffusion of turbulence following both stable and unstable step stratification perturbations**

Gallana, L., Abdunabiev, S., Golshan, M., Tordella, D., Physics of Fluids, 34(6), 065122, June 2022

### **Turbulent dispersion analysis via distance-neighbor graphs from direct numerical simulations**

Abdunabiev, S., Golshan, M., Abba, A., Tordella, D., In preparation 2023

---

## Conferences

### **EGU General Assembly**

Vienna, Austria, 8 April 2018

### **European Mechanics Society, Colloquium 596**

Venice, Italy, 11, May 2018

### **EPFDC 9th European Postgraduate Fluid Dynamics Conference**

Technische Universit at Ilmenau, Germany, 19 July 2019

### **17th European Turbulence Conference (ETC)**

Turin, Italy, 6 September 2019

### **EGU 2020**

Online, 8 May 2020

---

## Work in progress

Dec 2022–  
Nov 2023 **Collaboration to the project MIGRE- "WARM CLOUD MINI GREEN ULTRALIGHT EXPENDABLE RADIO SONDE"**

Turin, Italy