

# Francesco Ioli

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Francesco-Ioli

hZkC2UMAAAJ

Nationality: Italian

Date of Birth: 03/09/1995



PhD student in Environmental and  
Infrastructure Engineering @ DICA (Polimi)

## Education and training

2017 – 2020 **MSc Degree in Environmental and Land Planning Engineering**,  
Politecnico di Milano, (Italy), Grade 110L/110

Major in Land Monitoring and Diagnostics. MSc Thesis: *Evaluation of Airborne Image Velocimetry approaches with low-cost UAVs in riverine environments.*

09/2019 – 01/2020 **Visiting student for MSc thesis development**, ETH Zürich, (Switzerland)

01/2019 – 05/2019 **Erasmus exchange**, Aalto University, Helsinki (Finland)

2014 – 2017 **BSc Degree in Environmental and Land Planning Engineering**,  
Politecnico di Milano, Grade 102/110

*Snowpack surveys aimed at hydrological analysis: a case study carried out with UAVs and manual probing measurements on the Belvedere glacier (Macugnaga, Italian Alps).*

## Working experience

2021 – 2022 **Teaching assistant**, Politecnico di Milano, Courses of: *Trattamento delle Osservazioni (Statistics)*, *Sistemi Informativi Territoriali (GIS)*, *Tecniche di rilievo e modellazione 3D per l'architettura (3D modelling for architecture)*

06/2020–10/2020 **Internship**, Department of Civil and Environmental Engineering, Section of Geodesy and Geomatics, Politecnico di Milano, Supervisor: Prof. L. Pinto

## Skills

Programming	Matlab, Python, R	Photogrammetry	Agisoft Metashape, PhotoModeler, CloudCompare, MeshLab
GIS	QGIS, ESRI ArcGIS Pro & ArcGIS Desktop, ENVI	GNSS post-processing	Leica Infinity & Leica Geo Office, RTKLIB
CAD & 3D modelling	AutoCAD, ReCap, Autodesk Fusion 360, Rhino	Image processing	Adobe Photoshop & Lightroom, GIMP, RawTherapee, Inkscape
UAVs	UgCS, Mission Planner	OS	Windows, Linux OS (Debian)

## Languages

Italian Mother tongue  
English C1

IELTS certificate (19/07/2018) - British Council

## Main publications

- 2022 Ioli, F., Bianchi, A., Cina, A., De Michele, C., Maschio, P., Passoni, D., Pinto, L., 2022. Mid-Term Monitoring of Glacier's Variations with UAVs: The Example of the Belvedere Glacier. *Remote Sensing* 14, 28
- 2021 De Gaetani, C.I., Ioli, F., Pinto, L., 2021. Aerial and UAV Images for Photogrammetric Analysis of Belvedere Glacier Evolution in the Period 1977–2019. *Remote Sensing* 13, 3787.
- 2021 Ioli, F., Pinto, L., and Ferrario, F., 2021. Low-cost Assisted Aerial Triangulation for Sub-decimetric Accuracy with non-RTK UAVs. *Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci.* XLIII-B2-2021, 25–32

- 2020 Ioli, F., Pinto, L., Passoni, D., Nova, V., Detert, M., 2020. Evaluation of Airborne Image Velocimetry approaches using low-cost UAVs in riverine Environments. *Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci.* Vol. XLIII-B2-2020, 597–604.
- For a complete and up-to-date publication list, visit [Francesco Ioli Scholar page](#).

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## Additional information

### Professional qualification

07/2020 *Esame di Stato* for Civil and Environmental Engineers

### Licences

Driving license B

UAS license EASA A2 Open Category, with license for critical standard scenarios

### Volunteer experiences

2017–present Scout chief: children’s educator in the Italian Scout association *AGESCI*

2016–2017 Volunteer for *Operazione Mato Grosso* (charity organization)

2012–2016 Volunteer for *Libera. Associazioni, Nomi e Numeri contro le mafie*

October 30, 2022