

# Maddalena Torricelli

## Curriculum Vitae et Studiorum



## Contacts

maddalena.torricelli@gmail.com

## Digital Hub

maddalena.torricelli.me

LinkedIn

Google Scholar

Github

## Languages

IT (Native)

EN (Advanced)

ES, FR, DE (Basic)

## Code Stack

Python

Pandas, Numpy, Scipy, NetworkX, Gensim, Matplotlib, Seaborn, Pytorch

R

ggplot2, caret, glmnet

HTML, CSS, Javascript

basic knowledge

LaTeX

DataViz

d3.js, Vega Lite, Google Data Studio

Intensive course on effective visualization of data with d3.js and Vega Lite (Big Dive, Torino (IT), 2020)

## Working Experience

- 2025 - **Postdoctoral Research Associate** Northeastern University - NetSI Hub, USA  
**Sports analytics**  
Research topics: application of network science and data analytics to sports systems; leveraging complex systems theories and methods to address sports-related challenges.
- 👤 Outreach and networking activities at major sports conferences (MIT Sloan Sports Analytics Conference (2025), MIT Sports Summit (2024,2025))
- 2021 - 2023 **Postdoctoral Research Associate** City University of London, UK  
**Climate change on social media**  
Research topics: polarization and misinformation spread on social media about climate change; quantifying social perception of climate change and natural disasters.
- 👤 Teaching activity: Number Theory and Cryptography - Mathematics Dept.  
📅 Events organization: Data Natives (2022,2023), Complexity 72h (2023)

## Education

- 2017 - 2021 **PhD in Data Science and Computation** Alma Mater Studiorum di Bologna, Italy  
Thesis: Embedded representations of social interactions
- 2015 - 2017 **MSc in Physics of Complex Systems** Università degli Studi di Torino, Italy  
Thesis: Party cohesiveness in the Italian Parliament (1987-2013)  
M.Sc.: 110/110 cum laude

## Selected Publications

- 2025, Jun **Harder, shorter, sharper, forward: A comparison of women's and men's elite football gameplay (2020-2025)** arXiv:2506.22119  
Report resulting from Complexity 72h (2025)
- 2025, Feb **Unveiling the drivers of active participation in social media discourse** Nature Scientific Reports  
Publication resulting from Complexity 72h (2023)
- 2025, Jan **Temporal dynamics of goal scoring in soccer** arXiv:2501.18606
- 2024, May **The role of interface design on prompt-mediated creativity in Generative AI** WEBSCI '24: Proceedings of the 16th ACM Web Science Conference  
Presented at WEBSCI Conference, 24.04.2024, Stuttgart (DE)
- 2023, Nov **How does extreme weather impact the climate change discourse? Insights from the Twitter discussion on hurricanes** PLOS Climate  
Presented at CCS Conference, 20.10.2023, Salvador, Bahia (BR)
- 2020, Apr **weg2vec: Event embedding for temporal networks** Nature Scientific Reports  
Presented at NetSci Conference, 29.05.2019, Burlington, VT (USA)

A full list of publications is available on my Google Scholar profile.

## Selected conferences, talks, projects and workshops

- 2025, Jun **Complexity72h** Madrid (ES)  
Tutoring in the Complexity72h workshop.
- 2024, Oct **Northeastern University - NetSI Hub** Boston, MA (USA)  
Invited talk: Network Analytics and Data Science Insights from Social Systems to Sports
- 2023, Jun **Sònar+D** Barcelona (ES)  
Collaboration with the EXPLAIN Project: analyzing lyrics and music of Sònar festival artists to detect patterns and track their evolution.