# IRENE CANNISTRACI

## PhD Student in CS | Visiting Researcher @ Helmholtz Munich

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## EDUCATION

### Ph.D. in Computer Science
**Nov 2020 - Present**
*Sapienza University of Rome* — *Rome, Italy*
Part of the GLADIA group, advised by Prof. Emanuele Rodolà ⧉.

### M.Sc. in Computer Science
**Sep 2018 - Oct 2020**
*Sapienza University of Rome* — *Rome, Italy*
Grade: **110/110 cum laude**

### B.Sc. in Computer Science
**Sep 2013 - Mar 2017**
*Sapienza University of Rome* — *Rome, Italy*

## EXPERIENCE

### International Research Visit
**Feb 2024 - Present**
*Institute of AI for Health, Helmholtz Munich* — *Munich, Germany*
Working at the intersection of representation learning, geometric deep learning, and topological machine learning in the AIDOS Lab, led by prof. Bastian Rieck ⧉

### Teaching Assistant
**Sept 2023 - Present**
*LUISS Guido Carli University* — *Rome, Italy*
Lectured and mentored **40+ students** for the **Data Science in Action** MSc course, and designed and implemented the course lab sessions.

### Teaching Assistant
**Feb 2023 - Jun 2023**
*Sapienza University of Rome* — *Rome, Italy*
Lecturered and mentored **80+ students** for the **Deep Learning and Applied AI** ⧉ MSc course.

### Software Developer Engineer
**Jun 2017 - Feb 2019**
*NTT Data* — *Rome, Italy*
Developing multiple software for several international customers such as Enel and Telecom.

## SELECTED INVITED TALKS

### From Bricks to Bridges: Product of Invariances to Enhance Latent Space Communication
**29 Feb 2024**
*Helmholtz AI, Helmholtz Munich* — *Munich, Germany*
Hosted by Prof. Stefan Bauer. Slides here ⧉

### Unify Latent Spaces to Reuse Neural Components
**20 Feb 2024**
*Helmholtz AI PhD Seminar, Helmholtz Munich* — *Munich, Germany*
Slides here ⧉

### Unifying Representations by Infusing Invariances in the Latent Space
**22 Jul 2023**
*Tübingen AI center* — *Tübingen, Germany*

### Communicating between latent spaces with limited semantic correspondence
**31 Mar 2022**
*Trento AI Journal Club* — *Trento, Italy*
Slides here ⧉

### Panelist for the Women in Data Science Event
**24 Jun 2021**
*WiDS Rome Event* — *Virtual*

## AWARDS

### ELISE Mobility Program for PhDs ⧉
*Mar 2024*
Travel Grant of **€5,000** for junior researchers in the ELISE/ELLIS network

### G-Research Grant for PhD Students ⧉
*Feb 2024*
Research grant of **£2,000** for PhD students and postdocs in quantitative fields

### Helmholtz Visiting Researcher Grant ⧉
*Feb 2024*
Three months **fully-funded research stay** at the Helmholtz Munich (Apr-Jun)

### Kickstarting Research Funding ⧉
*Nov 2022*
Research grant of **€1,000** for young researchers and Ph.D. students

### Women in Technology Scholarship ⧉
*Mar 2022*
Grant of **US$8,000** for women of any age and nationality, pursuing an IT degree

## PROFESSIONAL ACTIVITIES

**Reviewer**
IJCNN 2023; Re-Align@ICLR2023; NeurReps, UniReps, New in ML, WiML @NeurIPS2023; ICIAP 2023; ACM TKDD 2021

**Volunteering**
WiML@NeurIPS2023

## TECHNICAL SKILLS

Representation Learning · Multimodal · Deep Learning · Computer Vision · Foundation Models · Transformers · NLP · Git · Python · PyTorch

## REFEREES

**Prof. Emanuele Rodolà** *ERC grantee*
📍 Sapienza University of Rome
@ rodola@di.uniroma1.it

**Prof. Bastian Rieck**
📍 Helmholtz Munich and Technical University of Munich (TUM)
@ bastian.rieck@helmholtz-muenchen.de

# SELECTED PUBLICATIONS

**Peer reviewed**

[1]   **I. Cannistraci**, L. Moschella, M. Fumero, V. Maiorca, and E. Rodolà. "From Bricks to Bridges: Product of Invariances to Enhance Latent Space Communication". In: *The Twelfth International Conference on Learning Representations* **(ICLR 2024, spotlight, top 5%)**. 2024. URL: `https://openreview.net/forum?id=vngVydDWft`.

[2]   **I. Cannistraci**, L. Moschella, V. Maiorca, M. Fumero, A. Norelli, and E. Rodolà. "Bootstrapping Parallel Anchors for Relative Representations". In: *The First Tiny Papers Track at ICLR 2023*, **Tiny Papers @ ICLR 2023**, *Kigali, Rwanda, May 5, 2023*. Ed. by K. Maughan, R. Liu, and T. F. Burns. OpenReview.net, 2023. URL: `https://openreview.net/pdf?id=VBuUL2IWlq`.

[3]   D. Crisostomi, **I. Cannistraci**, L. Moschella, P. Barbiero, M. Ciccone, P. Liò, and E. Rodolà. "From Charts to Atlas: Merging Latent Spaces into One". In: *NeurIPS 2023 Workshop on Symmetry and Geometry in Neural Representations* **(NeurReps @ NeurIPS 2023)** (2023). URL: `https://arxiv.org/abs/2311.06547`.

**Preprints**

[4]   **I. Cannistraci**, M. Fumero, L. Moschella, V. Maiorca, and E. Rodolà. "Infusing invariances in neural representations". In: *Extended Abstract*, **TAG-ML workshop @ ICML 2023** (2023). URL: `https://openreview.net/pdf?id=mCm4iiNoNc`.