# IRENE CANNISTRACI

### PhD Student in CS

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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 - July 2024
*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 - May 2024
*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*
Lectured 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

👤 **Program Chair**
UniReps@NeurIPS2024 ⧉

📖 **Reviewer**
NeurIPS; 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
🌐 Homepage ⧉

**Prof. Bastian Rieck**
📍 University of Fribourg
🌐 Homepage ⧉

# 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`.