

# Giovanni Palla

*PhD candidate - Munich School for Data Science, Institute of Computational Biology, Helmholtz - TU Munich*

## Work

09/2024- present **Research Scientist**, AI/ML, Chan Zuckerberg Initiative, Redwood City, California, US.

## Education

10/2019- 09/2024 **PhD candidate**, Prof Dr Fabian Theis's group, Machine Learning and Single-Cell Genomics, Institute of Computational Biology, Helmholtz Center Munich, Munich, Germany.

09/2016- 11/2018 **MSc in Drug Innovation - 9.1/10 cum laude**, Graduate School of Life Sciences, Utrecht University, Utrecht, The Netherlands.

09/2013- 07/2016 **BSc in Biomolecular Sciences and Technology - 110/110 cum laude**, University of Trento, Trento, Italy.

06/2012 **High School Diploma-Scientific Field**, Liceo Scientifico G.B. Quadri, Vicenza, Italy.

## Publications

- 2025 Mapping cells through time and space with Moscot, Klein\*, **Palla\***, Lange\*, Klein\*, Piran\* et al., 10.1038/s41586-024-08453-2.  
Nature
- 2025 SpatialData: an open and universal data framework for spatial omics, Marconato\*, **Palla\***, Yamauchi\*, Virshup\* et al., 10.1038/s41592-024-02212-x.  
Nature Methods
- 2023 The scverse project provides a computational ecosystem for single-cell omics data analysis, Virshup\*, Bredikhin\*, Heumous\*, **Palla\***, Sturm\*, Gayoso\* et al., 10.1038/s41587-023-01733-8.  
Nature Biotechnology
- 2022 Modeling Single-Cell Dynamics Using Unbalanced Parameterized Monge Maps, Eyring\*, Klein\*, **Palla\*** et al., Talk @ NeurIPS - LMRL Workshop 2022, 10.1101/2022.10.04.510766.  
bioRxiv
- 2022 Uncertainty Quantification for Atlas-Level Cell Type Transfer, Engelmann\*, Hetzel\*, **Palla\*** et al., Poster @ ICML 2022 - Workshop on Computational Biology, arXiv:2211.03793.  
arxiv
- 2022 Squidpy: a scalable framework for spatial omics analysis, **Palla\***, Spitzer\* et al., 10.1038/s41592-021-01358-2.  
Nature Methods
- 2022 Spatial components of molecular tissue biology, **Palla\***, Fischer\* et al., 10.1038/s41587-021-01182-1.  
Nature Biotechnology
- 2020 Latent Factor Modeling of scRNA-Seq Data Uncovers Dysregulated Pathways in Autoimmune Disease Patients, **Palla\*** et al., 10.1016/j.isci.2020.101451.  
iScience 2020

## Talks and Posters

- 2023 **Poster**, *Mapping cells through time and space with Moscot*, Single Cell Genomics 2023.  
Engelberg, Switzerland
- 2023 **Poster**, *SpatialData and Moscot for the integrative analysis of spatial omics data*, Human Cell Atlas General Meeting 2023.  
Toronto, Canada
- 2022 **Poster**, *SpatialData: a FAIR framework for spatial multiomics data*, Single Cell Genomics 2022.  
Utrecht, Netherlands
- 2022 **Invited talk**, *ECCB 2022 - Workshop on Spatial Transcriptomics and cell-cell communication modeling*, ECCB 2022.  
Sitges, Spain - Virtual

## Presentations and Lectures

- 2023 **Lecturer**, *Spatial Omics Data Analysis*, MSc in Bioinformatics and Functional Genomics, IFOM.  
Milan, Italy
- 2022 **Lecturer**, *Spatial Omics Data Analysis*, MSc in Bioinformatics, University of Verona.  
Verona, Italy
- 2022 **Instructor**, *Spatial Omics Data Analysis*, SciLife Lab, 1-week course.  
Stockholm, Sweden - Virtual
- 2022 **Instructor**, *Advanced topics in single-cell analysis*, Swiss Institute for Bioinformatics, 1-week course.  
Basel, Switzerland

## Internships

- 06/2023-08/2023 **Intern**, *BioML team*, Microsoft Research, Cambridge, MA, USA.
- 11/2018-08/2019 **Intern**, *Dr Enrico Ferrero's team*, Autoimmunity, Transplantation & Inflammation, Novartis Institute for Biomedical Research, Basel, Switzerland.
- 11/2017-08/2018 **Intern - Otto Bayer fellow**, *Dr Judith Zaugg's group*, Structural and Computational Biology Unit, European Molecular Biology Laboratory, Heidelberg, Germany.

## Grants, Honors & Awards

- 2023 **SpatialData: A FAIR Framework for Multimodal Spatial Omics**, *CZI Single Cell Data Insight grant*, Key personnel, PIs: Moore, Stegle.
- 2022 **Interactive Visualization of Spatial Omics Data**, *napari Plugin Accelerator*, Key personnel, PI: Theis.
- 2021 **Add On fellowship**, *Joachim Herz Stiftung*.
- 2017 **Otto Bayer Fellowship**, *Bayer Foundation*.
- 2017 **Erasmus Scholarship**, *Utrecht University*.
- 2016 **Young Innovators Honor Program**, *Utrecht University*.
- 2013 **Merit award for outstanding results in undergraduate studies**, *University of Trento*.

## Teaching and Mentorship experience

- 2019- **Spatialdata, Squidpy and Scverse teams**, *worked with students and research assistants on implementations, project management*.

2019- **MSc and Bsc Thesis supervision**, *Supervised 4 master students and 1 bachelor student for their thesis.*

## Journal and Conference reviewing

2024- **Nature Communications.**

2023- **Optimal Transport and Machine Learning workshop**, *NeurIPS.*

2023- **Nature Methods.**

2021- **Bioinformatics.**

## Extra-Curricular Activities

11/2019- **Student representative**, MUNICH SCHOOL FOR DATA SCIENCE, Munich, Germany.

12/2022 Interdisciplinary graduate program between Helmholtz Munich, TUM, LMU and DLR.

11/2016- **Board Member**, CLUB ALPBACH TRENTINO, Trento, Italy.

09/2018 Part of the Forum Alpbach Network, European Forum Alpbach, Austria.

08/2016 **Scholarship holder**, EUROPEAN FORUM ALPBACH, Alpbach, Austria.

12/2015- **Board member**, OWL OPEN WET LAB, MUSE (Science Museum), Trento, Italy.

12/2016 First Biohacking association in Italy. Responsible for the joint-editorial staff with local newspapers.

01/2015- **Science Communicator**, RAGIONEVOLMENTE, Trento.

08/2016 Public events of science communication held in Trento and Bolzano.