Giuseppe Giuliani

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Vita

January 2026 - present
Postdoctoral researcher, *ICTP*, Trieste, Italy.
Quantitative Life Sciences

August 2020 - July 2025
Doctor of Philosophy, *Ohio State University*, Columbus, OH.
Department of Physics

January 2018 - May 2020
Master of Science, *Purdue University*, West Lafayette, IN.
Department of Physics and Astronomy

August 2012 - May, 2016
Bachelor of Science, *Purdue University*, West Lafayette, IN.
Dual Major in Physics and Mathematics

Awards

April, 2025
Poster Competition Winner.
COM Trainee Research Day for poster *Developing multiscale mechanistic in silico models using imaging mass cytometry/immunohistochemistry data to predict responses to immunotherapeutic interventions*

August, 2020
University Fellowship.
Ohio State University

Publications

- **Giuseppe Giuliani**, Dhruv Chavan, Rushil Gaddam, William Stewart, Zihai Li, Ciriyam Jayaprakash, Jayajit Das, *Immune and non-immune cell fencing of tumor cells is a widespread and functionally relevant spatial pattern in solid cancers,* bioRxiv (2025) (Currently under review for publication)
- Darren Wethington *et al.* (**Giuseppe Giuliani**), *Clonal stochasticity in early NK cell response to mouse cytomegalovirus is generated by mature subsets of varying proliferative ability,* eLife **14**, RP104951 (2025)
- **Giuseppe Giuliani**, Jayajit Das, *Neighbor's feedback helps macrophages learn tolerance in the gut,* Immunity **57**, 2002–2004 (2024). Preview of: R. T. Mertens et al., *A metabolic switch orchestrated by IL-18 and the cyclic dinucleotide cGAMP programs intestinal tolerance,* Immunity **57**, 2077–2094.e12 (2024)
- **Giuseppe Giuliani**, William Stewart, Zihai Li, Ciriyam Jayaprakash, Jayajit Das, *Spatial organization and stochastic fluctuations of immune cells impact clinical responsiveness to immunotherapy in melanoma patients, PNAS Nexus* 3, pgae539 (2024)
- Anqi Li *et al.* (**Giuseppe Giuliani**), *Selective targeting of GARP-LTGFβ axis in the tumor microenvironment augments PD-1 blockade via enhancing CD8+ T cell antitumor immunity*, Immunother. Cancer **10**, e005433 (2022)
- Hui Yu, **Giuseppe Giuliani**, and Gabor Csáthy, *An acoustic resonator with a closed geometry,* Am. J. Phys. **84**, 71 (2016)

Presentations

Talks

- March, 2025 - Giuseppe Giuliani, Anqi Li, Jay Mandula, Komal Das, Ciriyam Jayaprakash, Zihai Li, Jayajit Das, *Spatial modeling of cytokine-mediated intercellular communication uncovers a potential mechanism behind sex differences in tumor growth,* APS March Meeting 2025, Anaheim, CA. (primary presenter, contributed talk)
- March, 2024 - Giuseppe Giuliani, William Stewart, Ciriyam Jayaprakash, Jayajit Das, *Microscopic spatial organization of immune cells and stochastic fluctuations regulate patient response to immune checkpoint inhibitor drugs in melanoma,* APS March Meeting 2024, Minneapolis, MN. (primary presenter, contributed talk)
- February, 2024 - Giuseppe Giuliani, Komal Das, Zihai Li, William Stewart, Ciriyam Jayaprakash, Jayajit Das, *Spatial organization and stochastic fluctuations of immune cells impact clinical responsiveness to immunotherapy in melanoma patients,* 2024 TRCCC, Seven Springs, PA. (primary presenter, contributed talk)

Posters

- April, 2025 - Giuseppe Giuliani, William Stewart, Ciriyam Jayaprakash, Jayajit Das, *Developing multiscale mechanistic in silico models using imaging mass cytometry/immunohistochemistry data to predict responses to immunotherapeutic interventions,* OSU Research Day, Columbus, OH. (primary presenter)
- December, 2024 - Giuseppe Giuliani, Jay Mandula, Anqi Li, Komal Das, Ciriyam Jayaprakash, Zihai Li, Jayajit Das, *The spatial distribution of T cells mediates sex bias in MB49 mouse bladder cancer,* PIIO Immuno-Oncology Symposium, Columbus, OH. (primary presenter)
- February, 2024 - Giuseppe Giuliani, Komal Das, Zihai Li, William Stewart, Ciriyam Jayaprakash, Jayajit Das, *Developing multiscale mechanistic in silico models using imaging mass cytometry data to predict responses to immune checkpoint therapy interventions,* 2024 TRCCC, Seven Springs, PA. (primary presenter)
- December, 2023 - Giuseppe Giuliani, William Stewart, Zihai Li, Ciriyam Jayaprakash, Jayajit Das, *Developing multiscale mechanistic in silico models using imaging mass cytometry data to predict responses to immune checkpoint therapy interventions,* PIIO Immuno-Oncology Symposium, Columbus, OH. (primary presenter)
- November, 2023 - Giuseppe Giuliani, William Stewart, Zihai Li, Ciriyam Jayaprakash, Jayajit Das, *Developing multiscale mechanistic in silico models using imaging mass cytometry data to predict responses to immune checkpoint therapy interventions,* NCH Research Retreat, Columbus, OH. (primary presenter)
- September, 2023 - Giuseppe Giuliani, William Stewart, Ciriyam Jayaprakash, Jayajit Das, *Developing multiscale mechanistic in silico models using imaging mass cytometry data to predict responses to immune checkpoint therapy interventions,* Center for Cancer Engineering Research Summit, Columbus, OH. (primary presenter)
- April, 2023 - Giuseppe Giuliani, William Stewart, Ciriyam Jayaprakash, Jayajit Das, *Developing multiscale mechanistic in silico models using imaging mass cytometry/immunohistochemistry data to predict responses to immunotherapeutic interventions,* OSU Research Day, Columbus, OH. (primary presenter)
- November, 2022 - Giuseppe Giuliani, William Stewart, Zihai Li, Ciriyam Jayaprakash, Jayajit Das, *Developing multiscale mechanistic in silico models using imaging mass cytometry data to predict responses to immune checkpoint therapy interventions,* PIIO Immuno-Oncology Symposium, Columbus, OH. (primary presenter)
- November, 2022 - Giuseppe Giuliani, Ciriyam Jayaprakash, Jayajit Das, *Developing multiscale mechanistic in silico models using imaging mass cytometry/immunohistochemistry data to predict responses to immunotherapeutic interventions,* NCH Research Retreat, Columbus, OH. (primary presenter)

- August, 2021 - Giuseppe Giuliani, Ciriyam Jayaprakash, *Simulating mRNA splicing dynamics,* OSU Department of Physics Summer Poster Session, Columbus, OH. (primary presenter)

Technical Skills

- **Coding Languages:** Python (Advanced), C++ (Advanced), Mathematica (Proficient), MATLAB (Proficient)
- **High-Performance Computing Experience:** utilizing Linux cluster with Slurm Workload Manager