

Lorenzo De Rebotti

derebotti@diag.uniroma1.it

 Personal Website |  Google Scholar |  lderebotti

Rome, Italy

EDUCATION

- **La Sapienza, University of Rome** November 2023 - Current
PhD in Artificial Intelligence Rome, Italy
 - Supervisor - Prof. Giorgio Grisetti
- **La Sapienza, University of Rome** February 2023 - October 2023
Research Assistant Rome, Italy
 - Project - "AGV on the road"
 - Supervisor - Prof. Giorgio Grisetti
- **La Sapienza, University of Rome** September 2019 - January 2023
MSc in Artificial Intelligence and Robotics (110/110) Rome, Italy
 - High-Speed Stereo Visual SLAM with Windowed Bundle Adjustment
 - Supervisor - Prof. Giorgio Grisetti
- **La Sapienza, University of Rome** September 2016 - December 2019
BSc in Computer Engineering Rome, Italy
 - Development of a front end for map acquisition in structured environments using mobile robots
 - Supervisor - Prof. Giorgio Grisetti

FUNDING INFORMATION

- **AGV on the road** February 2023 - October 2023
State Estimation of Autonomous Grounded Vehicles in Industrial Environment
 - Investigator: Development of a Stereo-Visual-SLAM Pipeline based on Structureless Bundle Adjustment
 - Grant value: 200k

TEACHING EXPERIENCE

- **Probabilistic Robotics** Fall/Winter 2023, Fall/Winter 2024, Fall/Winter 2025
Tutor of the course held by prof. Giorgio Grisetti 
 - MSc Artificial Intelligence and Robotics - 6 CFU
 - Assisting teaching, practical sessions, and examination
- **Operating Systems** Spring/Summer 2023, Spring/Summer 2024
Tutor of the course held by prof. Giorgio Grisetti 
 - BSc Computer Engineering - 6 CFU
 - Assisting teaching, practical sessions, and examination

PUBLICATIONS

J=JOURNAL, C=CONFERENCE, S=IN SUBMISSION

- [J.1] L. De Rebotti, E. Giacomini, G. Grisetti, L. Di Giammarino (2025). [Resolution Where It Counts: Hash-based GPU-Accelerated 3D Reconstruction via Variance-Adaptive Voxel Grids](#). In *ACM Transaction on Graphics (ToG)*, DOI: 10.1145/3777909.
- [C.3] E. Giacomini, L. Di Giammarino, L. De Rebotti, G. Grisetti, and M. R. Oswald (2025). [Splat-LOAM: Gaussian Splatting LiDAR Odometry and Mapping](#). In *IEEE/CVF International Conference on Computer Vision (ICCV)* (pp. 27630-27639).
- [C.2] L. De Rebotti, and G. Grisetti (2024). [Structureless Bundle Adjustment for Robotics](#). In *Robotics and Intelligent Machines Conference (I-RIM)* (pp. 92-96), DOI: 10.5281/zenodo.14731057.
- [C.1] L. Brizi, E. Giacomini, L. Di Giammarino, S. Ferrari, O. Salem, L. De Rebotti, and G. Grisetti (2024). [VBR: A Vision Benchmark in Rome](#). In *2024 IEEE/RSJ International Conference on Robotics and Automation (ICRA)* (pp. 15868-15874). DOI: 10.1109/ICRA57147.2024.10611395.

SKILLS

- **Programming Languages:** C/C++, CUDA, Python, MATLAB
- **Spoken Languages:** Italian (mother tongue), English (proficient)