Irvin Aloise

Ph.D. Candidate in Engineering in Computer Science

Mail
ialoise@diag.uniroma1.it

Personal Site
https://istinj.github.io

LinkedIn
https://goo.gl/NQvHbJ

Birthday
May 21, 1991

Education

2017 - Oct 2020 (expected), Sapienza University of Rome
Ph.D. in Engineering in Computer Science
Research Topics: Mobile Robotics, Simultaneous Localization and Mapping, Graph Optimization.
Advisor: *Prof. Dr. Giorgio Grisetti*.

2019 - 2020, Rheinische Friedrich-Wilhelms-Universität of Bonn
Visiting Ph.D. Student
September 2019 - February 2020.
Research Topics: 3D-Lidar SLAM, Sensor Calibration.
Supervisor: *Prof. Dr. Cyrill Stachniss*.

2014 - 2017, Sapienza University of Rome
M.Sc. in Artificial Intelligence and Robotics (in English)
Thesis title: *Extended Measurements in Pose-Graph Optimization*.
Supervisor: *Prof. Dr. Giorgio Grisetti* and *Dominik Schlegel*.
Final grade: First Class with Honors ($^{110}/_{110}$ cum laude).

2010 - 2014, Sapienza University of Rome
B.Sc. in Electronic Engineering (in Italian)
Supervisor: *Prof. Giuseppe Oriolo*

Publications

Plug-and-Play SLAM: A Unified SLAM Architecture for Modularity and Ease of Use
IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2020
M. Colosi, I. Aloise, T. Guadagnino, D. Schlegel, B. Della Corte and G. Grisetti
To Appear in Conference Proceedings.

Least Squares Optimization: From Theory to Practice
MDPI: Robotics, 2020
G. Grisetti, T. Guadagnino, I. Aloise, M. Colosi, B. Della Corte and D. Schlegel
DOI: 10.3390/robotics9030051

Chordal Based Error Function for 3D Pose-Graph Optimization
IEEE Robotics and Automation Letters (RA-L), 2019
I. Aloise and G. Grisetti
DOI: 10.1109/LRA.2019.2956456

Systematic Handling of Heterogeneous Geometric Primitives in Graph-SLAM Optimization
IEEE Robotics and Automation Letters (RA-L), 2019
I. Aloise, B. Della Corte, F. Nardi and G. Grisetti
DOI: 10.1109/LRA.2019.2918054

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Teaching Activities

September 2019 - June 2020, Sapienza University of Rome
Teaching Assistant of Operating Systems - *Sistemi Operativi*
Course held by Prof. G. Grisetti, B.Sc. in Engineering in Computer Science, 6 ECTS credits.

September 2018 - June 2019, Sapienza University of Rome
Teaching Assistant of Operating Systems - *Sistemi Operativi*
Course held by Prof. G. Grisetti, B.Sc. in Engineering in Computer Science, 6 ECTS credits.

November 2017 - June 2018, Sapienza University of Rome
Teaching Assistant of Operating Systems - *Sistemi Operativi*
Course held by Prof. G. Grisetti, B.Sc. in Engineering in Computer Science, 6 ECTS credits.

Languages

Italian
Mother-tongue

English
Advanced

Skills

Programming
C++, C, Octave, Matlab, Python, OpenGL and ImGui.

Operating Systems
Ubuntu, Windows, MacOS

Interests

Professional
Mobile Robotics, SLAM, Sensor Calibration, Computer Vision, Autonomous Robotics, Machine Learning

Personal
Music, Cinema, Video-games, Technology, Photography, Motor Sports

Personal Projects

2019, Rheinische Friedrich-Wilhelms-Universität of Bonn
Extrinsic Calibration between 3D-Lidar and Monocular Camera

2016, Sapienza Univesity of Rome, Exam project
Development of a Simulation Environment for Teleoperated Surgical Tasks

2016, Sapienza University of Rome, Exam project
Analyzing Visualization Techniques for Convolutional Neural Neworks

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References

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Associate professor at Sapienza University of Rome
Dept. of Computer, Control, and Management Engineering
Via Ariosto 25, 00185, Rome, Italy
Mail: grisetti@diag.uniroma1.it

Prof. Dr. Cyrill Stachniss
Full professor at the University of Bonn
Head of the lab for Photogrammetry and Robotics
Nussallee 15, 53115, Bonn, Germany
Mail: cyrill.stachniss@igg.uni-bonn.de

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