

**Mail**

[ialoise@diag.uniroma1.it](mailto:ialoise@diag.uniroma1.it)

**Personal Site**

<https://istinj.github.io>

**LinkedIn**

<https://goo.gl/NQvHbJ>

**Birthday**

May 21, 1991

# Irvin Aloise

## Ph.D. Candidate in Engineering in Computer Science

### 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 (<sup>110</sup>/<sub>110</sub> 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 University 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 Networks**

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## References

**Prof. Dr. Giorgio Grisetti**

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](mailto:grisetti@diag.uniroma1.it)

**Prof. Dr. Cyrill Stachniss**

Full professor at the University  
of Bonn

Head of the lab for Photogram-  
metry and Robotics

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