



Advancing Autonomy for Aerial Robotics
A Special Track of the
11th International Symposium on Visual Computing (ISVC15)
<http://www.isvc.net/>
December 14–16, 2015
Las Vegas, Nevada, USA

Scope

Aerial robots are currently at the forefront of robotic research and have managed to raise great interest within our societies. As a field, aerial robotics research encompasses a multitude of disciplines including that of modeling and aerodynamics, pioneering mechanical design, avionics, advanced motion control, machine learning, sensing and estimation, computer vision, path planning, decision-making and autonomous behaviors, distributed, networked and multi-agent systems as well as human-robot interaction. This special track aims to investigate and discuss new, novel and solid solutions to the urgent problem of establishing true navigational and operational autonomy for small aerial robotic systems such that they can function as intelligent aerial service robotic agents to the benefit of our societies. We welcome papers from all the relevant scientific fields and disciplines, solid contributions or promising preliminary results that push the state-of-the-art and try to advance, robustify and unify the perception-action-navigation loops and improve the operational autonomy of unmanned aircrafts as well as application-driven papers that present results towards the goal to integrate aerial robotics as a new class of intelligent agents able to support our collective societal needs.

Topics

The topics of interest of this special track include but are not limited to the following areas:

- Applications of Aerial Robotics
- Autonomous Navigation
- Distributed Systems
- Energy Efficient Aerial Robotics
- Fault-Tolerant and Fail-Safe Systems
- Field Robotics
- Guidance and Navigation
- Human-Robot Interaction
- Machine Learning
- Motion Control
- Multi-Robot Systems
- Networked Systems

- Path Planning
- Robotic Vision
- Sensor Fusion
- Simulation and Modeling
- Simultaneous Localization and Mapping
- State Estimation and Sensor Fusion
- Vision-guided Aerial Robotics

Paper Submission Procedure

Papers submitted to this ISVC 2015 Special Track must not have been previously published and must not be currently under consideration for publication elsewhere. Manuscripts should be submitted in camera-ready format and should not exceed **12 pages**, including figures and tables (see <http://www.isvc.net> for details). All papers accepted will appear in the symposium proceedings which will be published by **Springer-Verlag** in the **Lecture Notes in Computer Science (LNCS)** series.



Important Dates

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| Paper submission: | <i>August 21, 2015</i> |
| Notification of Acceptance: | <i>September 23, 2015</i> |
| Final Camera Ready Paper: | <i>October 20, 2015</i> |
| Advance Registration: | <i>October 20, 2015</i> |
| ISVC Symposium: | <i>December 14–16, 2015</i> |

Organizers

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Website

ISVC Conference: <http://www.isvc.net/>

Special Track Site: <https://sites.google.com/site/isvc15aerialrobotics/>