

María Santos

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EDUCATION

Georgia Institute of Technology, Atlanta, Georgia, USA

Doctor of Philosophy in Electrical and Computer Engineering

Aug 2016 – present

- Current cumulative GPA: 4.0/4.0

Master of Science in Electrical and Computer Engineering

Aug 2014 – May 2016

- Master's Thesis: Musical Abstractions for Multi-Robot Coordination
- Current cumulative GPA: 4.0/4.0

Universidade de Vigo, Vigo, Spain

Master in Advanced Industrial Processes and Technologies Research

Oct 2013 – Jul 2014

- Master's Thesis: Obstacle Avoidance System in 3D Based on CVM
- Cumulative GPA: 9.18/10.00

Industrial Engineering, specialization in Controls and Electronics

Sep 2008 – Sep 2013

- Master's Thesis: Adaptation of Tools of the RIDE Environment to the ROS Architecture
- 5 year engineering degree equivalent to BSc and MSc
- Cumulative GPA: 8.67/10.00

Conservatorio de Música Manuel Quiroga, Pontevedra, Spain

Professional Degree in Music, specialization in Violin

Sep 2005 – Jun 2012

- Cumulative GPA: 8.60/10.00

RESEARCH EXPERIENCE

Georgia Institute of Technology, School of Electrical and Computer Engineering

Graduate Research Assistant, GRITS Lab

Aug 2016 – present

Graduate Student, GRITS Lab

Jan 2015 – May 2016

- Advisor: Dr. Magnus Egerstedt
- Research areas: control theory, multi-robot control, human-swarm interaction

Universidade de Vigo, Department of Controls and Systems Engineering

Graduate Research Assistant, Group of Robotics and Intelligent Systems

Oct 2013 – Jul 2014

Undergraduate Research Assistant, Group of Robotics and Intelligent Systems

Oct 2012 – Jul 2013

- Advisor: Dr. Joaquín López Fernández
- Research areas: executive layer of robotic control architectures, obstacle avoidance

PUBLICATIONS

JOURNALS

M. Santos and M. Egerstedt, "From Motions to Emotions: Can the Fundamental Emotions be Expressed in a Robot Swarm?", in *International Journal of Social Robotics*, under review. arXiv preprint available at:1903.12118..

M. Santos, Y. Diaz-Mercado and M. Egerstedt, "Coverage Control for Multirobot Teams With Heterogeneous Sensing Capabilities," in *IEEE Robotics and Automation Letters*, vol. 3, no. 2, pp. 919-925, April 2018.

J. López, D. Pérez, M. Santos and M. Cacho, "GuideBot. A Tour Guide System Based on Mobile Robots," in *International Journal of Advanced Robotic Systems*, 10:381, November 2013.

CONFERENCES

M. Santos, S. Mayya, G. Notomista, and M. Egerstedt, "Decentralized Minimum Energy Coverage Control for Time-Varying Density Functions", in *2019 IEEE International Symposium on Multi-robot and Multi-agent Systems (MRS)*, New Brunswick, NJ, August 2019, to appear. Outstanding paper finalist.

G. Notomista, M. Santos, S. Hutchinson, and M. Egerstedt. "Sensor Coverage Control Using Robots Constrained to a Curve". *2019 IEEE International Conference on Robotics and Automation (ICRA)*, Montreal, May 2019, pp. 3010-3016.

R. Funada, M. Santos, J. Yamauchi, T. Hatanaka, M. Fujita, and M. Egerstedt. "Visual Coverage Control for Teams of Quadcopters via Control Barrier Functions", *2019 IEEE International Conference on Robotics and Automation (ICRA)*, Montreal, May 2019, pp. 3010-3016.

M. Santos and Magnus Egerstedt. "Coverage Control for Multi-Robot Teams with Heterogeneous Sensing Capabilities Using Limited Communications", in *2018 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Madrid, October 2018, pp. 5313-5319.

TEACHING EXPERIENCE	Georgia Institute of Technology , Graduate Teaching Assistant	
	Optimal Control, ECE 6553	Jan 2017 –May 2017
	Advanced Programming Techniques, ECE 4122/6122	Aug 2015 –Dec 2015
HONORS & AWARDS	La Caixa Scholarship for Graduate Studies in North-America	Jul 2016
	• Awarded by Obra Social La Caixa	
	Premio Fin de Carrera, Xunta de Galicia	Oct 2015
	• Awarded to the most outstanding Industrial Engineer graduating in the academic year 2013-14 in the autonomous community of Galicia, Spain	
	Premio Extraordinario Fin de Carrera, University of Vigo	Jan 2015
	• Awarded to the most outstanding Industrial Engineer graduating in the academic year 2013-14 at the University of Vigo	
	Fulbright Scholarship for Graduate Studies	Jun 2013
	• Awarded by the Fulbright Commission in Spain	
LANGUAGES	Spanish: native	
	Galician: native	
	English: full professional proficiency	