# Andreea Radulescu

## Education

2011–2016 **PhD Robotics**, *University of Edinburgh*, School of Informatics.

Institute of Perception, Action and Behaviour

2010–2011 MSc Artificial Intelligence, University of Edinburgh, School of Informatics,

MSc Thesis: Exploiting Variable Physical Damping.

Graduated with Distinction

2004–2009 Bachelor of Engineering, "POLITEHNICA" University of Bucharest, Faculty of Automatic

Control and Computers, Diploma grade: 9.75 (97.5%).

Main field of study: System and Computer Engineering Specialisation: Automatic Control and Applied Informatics

## Experience

2016–present PostDoctoral Researcher, ISTITUTO ITALIANO DI TECNOLOGIA.

Advanced Robotics Department - Dynamic Legged Systems

2012–2016 **Teaching Experience**, University of Edinburgh.

- 0 2012 2013
  - Teaching Assistant Data Mining and Exploration
  - Tutor Informatics Research Proposal
- o 2013 2014
  - Lab Demonstrator Robotics: Science and Systems
  - Tutor System Design Process
- o 2014 2015
  - Lab Demonstrator Robotics: Science and Systems
  - Tutor System Design Process
- 2009 Intern (Process Engineering Department), DACIA, GROUP RENAULT.

During this internship I have completed my Bachelor Dissertation ("Modifications and backup management procedure for the OSCAR system").

#### Miscellaneous

2013 - 2016 Meeting coordinator, University of Edinburgh.

Organise regular research group meetings. Manage bookings and set up rota.

2013 - 2015 EIE Conference Staff member, IVENTURES.

Part of the support staff team.

2012 - 2016 Public engagement, University of Edinburgh.

Science communication volunteer at various public outreach events. Open doors day volunteer.

Invited Talks

25th May Robust Locomotion Strategies on the HyQ Robot Series, Dynamic Legged Locomotion

2018 in Realistic Terrains Workshop, The International Conference on Robotics and Automation (ICRA 2018), Brisbane, Australia.

#### **Publications**

- 2018 Simultaneous Contact, Gait, and Motion Planning for Robust Multilegged Locomotion via Mixed-Integer Convex Optimization, The International Conference on Robotics and Automation (ICRA 2018).
  - Authors: Bernardo Aceituno-Cabezas, Carlos Mastalli, Hongkai Dai, Michele Focchi, Andreea Radulescu, Darwing G. Caldwell, José Cappelletto, Juan C. Grieco, Gerardo Fernández-López, Claudio Semini
- 2017 Learning Optimal Gait Parameters and Impedance Profiles for Legged Locomotion, The International Conference on Humanoid Robots (Humanoids 2017).

  Authors: Elco Heijmink, Andreea Radulescu, Brahayam Ponton, Victor Barasuol, Darwing G. Caldwell, Claudio Semini
- 2017 Whole-body Trajectory Optimization for Non-periodic Dynamic Motions on Quadrupedal Systems, The International Conference on Robotics and Automation (ICRA 2017).
  - Authors: Andreea RADULESCU, Ioannis HAVOUTIS, Darwing G. CALDWELL, Claudio SEMINI
- 2017 Trajectory and Foothold Optimization Using Low-Dimensional Models for Rough Terrain Locomotion, The International Conference on Robotics and Automation (ICRA 2017).
  - Authors: Carlos Mastalli, Michele Focchi, Ioannis Havoutis, Andreea Radulescu, Sylvain Calinon, Jonas Buchli, Darwing G. Caldwell, Claudio Semini
- 2017 Probabilistic Contact Estimation and Impact Detection for State Estimation of Quadruped Robots, The International Conference on Robotics and Automation (ICRA 2017).
  - Authors: Marco Camurri, Maurice Fallon, Stephane Bazeille, Andreea Radulescu, Victor Barasuol, Darwing G. Caldwell, Claudio Semini
- 2017 Optimal Control of Variable Stiffness Policies: Dealing with Switching Dynamics and Model Mismatch, Springer Tracts in Advanced Robotics, Geometric and Numerical Foundations of Movements.
  - Authors: Andreea Radulescu, Jun Nakanishi, David J. Braun, Sethu Vijayakumar
- 2016 Optimization for non-periodic dynamic motions of legged systems, The 9th International Workshop on Human-Friendly Robotics (HFR 2016).
  Authors: Andreea RADULESCU, Ioannis HAVOUTIS, Darwing G. CALDWELL, Claudio SEMINI
- 2015 Optimal Control of Multi-Phase Movements with Learned Dynamics, IEEE International Conference on Man-Machine Interactions (ICMMI).

  Authors: Andreea RADULESCU, Jun NAKANISHI, Sethu VIJAYAKUMAR
- 2014 Spatio-Temporal Stiffness Optimisation in Movements with Switching Dynamics, IEEE Transactions on Robotics (T-RO) Journal (currently under review).

  Authors: Jun Nakanishi, Andreea Radulescu, David Braun, Sethu Vijayakumar
- 2013 **Spatio-temporal Optimisation for Multi-phase Movements: Dealing with Contacts and Switching Dynamics**, IEEE/RSJ International Conference of Intelligent Robots and Systems, Tokyo, Japan.
  - Authors: Jun Nakanishi, Andreea Radulescu, Sethu Vijayakumar
- 2012 Exploiting Variable Physical Damping in Rapid Movement Tasks, IEEE/ASME International Conference on Advanced Intelligent Mechatronics, Kaohsiung, Taiwan [AIM 2012 Best Student Paper Award Finalist].
  - Authors: Andreea Radulescu, Matthew Howard, David Braun, Sethu Vijayakumar

#### **Awards**

2011 Informatics UK/EU Master's Scholarship 2010-2011

# Computer skills

Basic HTML, UML, SQL Server, Assembler, Verilog, LabView, Microsoft Robotics Studio, Corel Paintshop Pro, Autodesk 3ds Max

Intermediate C++, JAVA, OpenOffice, Linux, Microsoft Windows, Microsoft Office Tools

Advanced Matlab, Octave, LATEX

## Certificates and activities

2008 CISCO - CCNA1 (Cisco Certified Network Associate)

2008 CISCO - Fundamentals of Java Programming

2008 Student Scientific Conference - POLITEHNICA University of Bucharest Automated methods of detection for the QRS complex in the ECG

2007 Summer Course BEST - Vrije Universiteit Brussel Introduction into aero-spatial engineering

2006 Summer Course BEST - Budapest University of Technology and Economics Introduction to networking

2006 Student Scientific Conference CERC - Technical Military Academy, Bucharest The use of fractals in image compression

# Languages

English Fluent

Romanian Native speaker

German Intermediate

Italian Intermediate

Cambridge Advanced English Certificate