

# Gabriel Urbain

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## EXPERIENCE

**UGENT | PHD STUDENT - RESEARCH ASSISTANT - IDLAB/IMEC**  
Since October 2015 | Ghent, Belgium  
Topic: Brain-inspired CPG architectures for robust locomotion learning on quadruped robots.

**UMONS | RESEARCHER AT THE NUMEDIART INSTITUTE**  
February - October 2015 | Mons, Belgium

## EDUCATION

**MASSACHUSETTS INSTITUTE OF TECHNOLOGY**  
MASTER PROJECT AT THE SPACE SYSTEMS LABORATORY  
June 2014 – November 2014 | Cambridge, USA

**ISAE | SUPAERO**  
MASTER OF SCIENCE IN AEROSPACE ENGINEERING  
August 2012 – November 2014 | Toulouse, France  
Double Master Degree through T.I.M.E. Network. Major : Space Systems, Telecommunications and Networks.

**UMONS | FACULTÉ POLYTECHNIQUE**  
BACHELOR AND MASTER OF SCIENCE IN ELECTRICAL ENGINEERING  
September 2008 – November 2014 | Mons, Belgium  
Major: Multimedia et Telecommunications. Graduated with Honors.

## PUBLICATIONS

**Morphological Properties of Mass-Spring Networks for Optimal Locomotion Learning.**  
G. Urbain, J. Degraeve, B. Carette, F. Wyffels and J. Dambre. In *Frontiers in Neurorobotics*. 2017

**A Semantic and Content-Based Search User Interface for Browsing Large Collections of Foley Sounds.**  
G. Urbain, C. Frisson, A. Moinet and T. Dutoit. In: *Audio Mostly - A conference on interaction with sound*. 2016

**INSPECT Sensor Suite for On-Orbit Inspection and Characterization with Extravehicular Activity Spacecraft.**  
D. Steinberg, T. Sheerin and G. Urbain. In: *45th International Conference on Environmental Systems*. 2015

## ASSOCIATIVE LIFE

**IROBOTIQUE ASSOCIATION | ADMINISTRATOR AND SOFTWARE MANAGER**  
2004 - 2017 | Mons, Belgium

**MUSEOMIX BELGIUM | ADMINISTRATOR AND ORGANISER**  
2015 - 2017 | Brussels, Belgium

## CAMPUS ACTIVITIES

Gent Universitair Symphonisch Orkest (2016-2017) • Sailing (2014) • CubeSat (2012-2014) • Scuba Diving (2013-2014) • Supaero Jazz Band (2012-2014) • Rowing (2013) • Student Culture Committee (2010-2011) • President of Regional Student Committee (2009-2012) • Student representative for the board of Faculty (2011-2012) • Student representative for the University Evaluation Commission (2011-2012) • Student representative for the Board of Libraries (2010-2011) • Jazz Band Baudour (2001-2011) • Drums • Trumpet • Piano • Choral music

## BIO

I'm a PhD student involved in the neuro-robotics branch of the European Human Brain Project. I'm pursuing research on embodiment, brain-inspired neural controllers and reinforcement learning for locomotion with robots. I've studied engineering both at University of Mons, Belgium and Supaero, France and did my Master thesis at MIT in USA. Among others, I've taken part in projects in computer vision, music information retrieval and space robotics. I like hiking, playing drums, trumpet and piano and I gladly involve in associations or committees with cultural and educational impact like iRobotique and Museomix where I'm responsible in administration and operations.

## LANGUAGES

**French (C2) • English (C1 - TOEFL IBT 105/120 in 2014) • Dutch (B1) • Spanish (A2)**