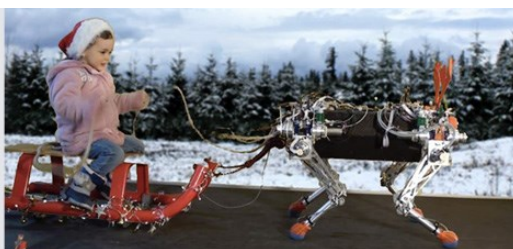


?

Merry Christmas
and happy
New Year



The infoletter will be back mid February 2014

NCCR NEWS

Aude Billard chairs the Education Committee

Aude Billard has officially replaced Auke Ijspeert as chair of the Education Committee. We thank Auke for his involvement and commitment in this committee since the start of the NCCR.



Advisory Board: Robin Murphy

NCCR Robotics welcomes Robin Murphy ([Texas A&M University](#)) who officially joined the NCCR Robotics [Advisory Board](#) last October.



First Spin Fund launched

Sergei Lupashin has officially been granted the first NCCR Robotics Spin Fund for Fotokite. Fotokite made a demonstration during the NCCR Site Visit last month. [Read more](#)



CYBATHLON 2016

The Cybathlon is a championship with handicapped racing pilots using advanced and novel assistive robotic technologies. NCCR Robotics members are highly encouraged to participate. [Read more](#)



NCCR Robotics is supporting the Flying Donkey Challenge

This forum plans to attract, and reward, the finest teams to actually tackle the technological, legal, logistical and design challenges of flying-parcel carriers on a massive scale. [Read more](#)



Acceptability and utility of robots in classrooms

There is an ongoing interdisciplinary investigation on the acceptability and utility of robots in classrooms within the Active Environment scenario. [Read more](#)



ROBOTICS WORLD

Top News

[Beginner's guide to the humanoid robot challenge \(DRC\)](#)

[Apple, Amazon and now Google: It's a pretty exciting day for robotics!](#)

[Noisy imitation speeds up group learning](#)

[VIDEO Quadcopter failsafe algorithm: Recovery after propeller loss](#)

[8 robotic toys for the holidays](#)

World events

[ISRR 2013 - International Symposium on Robotics Research](#)

[IROC 2013 - International Robot Olympiad Competition ?](#)

External calls

[IEEE RO-MAN 2014](#)

Half-day Tutorials and Workshops. [Read more](#)

[Innorobo 2014](#)

Call for Robotics Start-Ups [Read more](#)

External Positions

[Untenured tenure-track position](#)

at the assistant or associate professor level at Caltech [Read more](#)

R. Riener's

favourite links:

[PubMed.gov](#)

[Pubmed](#)

[Cybathlon](#)

[Google Scholar](#)

CONTACT

Children playing dominos together with the Ranger robot

It started this summer, and it is still going on: Julia Fink and Séverin Lemaignan ([CHILI](#), with the help of the good folks at [LSRO](#)) are inviting children to play dominos with the 'Ranger' robot. [Read more](#)



NCCR Open Positions

Postdoc in computer vision for micro flying robots

Open position at [RPG](#), University of Zurich. Job description: You will be involved in a project in collaboration with an world leading industrial partner in Micro Aerial Vehicles (MAVs). You will actively contribute real-time 3D computer vision and sensor fusion algorithms to run onboard camera-equipped MAVs. [Read more](#)

CONGRATULATIONS

Grégoire Courtine

Grégoire Courtine was awarded the Debiopharm Group[™] Life Sciences Award 2013 during the annual EPFL SV-Life Science Symposium, the LSS2013. [Read more](#)



Ludovic Daler

Ludovic Daler ([LIS-EPFL](#)) received an award for the 2nd best student paper at IROS 2013 for the paper "A flying Robot with Adaptive Morphology for Multi-Modal Locomotion" [Read more](#)



Kathrin Peyer

Kathrin Peyer ([IRIS ETH](#)) had her thesis defense 25th November. This thesis addresses the challenges of finding suitable propulsion mechanism for swimming microrobots actuated by an external magnetic field.



Upcoming NCCR EVENTS

5-6 March 2014

Annual Retreat

Zurich

Annual Retreat 2014

Past NCCR EVENTS

20-22 November 2013

Site Visit

EPFL



SELECTED NCCR PUBLICATIONS *

- A. Briod, et al. Optic-Flow Based Control of a 46g Quadrotor. Workshop on Vision-based Closed-Loop Control and Navigation of Micro Helicopters in GPS-denied Environments, IROS 2013, Tokyo, Japan, 2013.
- M. Capogrosso et al. A computational model of Epidural Electrical Stimulation of the spinal cord, J Neurosci 2013.
- E. Di Mario, et al. Distributed Particle Swarm Optimization for limited-time adaptation with real robots, Robotica -Cambridge-, vol. FirstView, p. 1-16, 2013.
- F. Ducatelle et al. Cooperative navigation in robotic swarms, in Swarm

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Intelligence, p. 1-33, 2013.

- S. El-Khoury et al. On the Generation of a Variety of Grasps, Journal of Robotics and Autonomous Systems, Volume 61, Issue 12, Pages 1335–1349. December 2013.
- P. Fankhauser et al. Reinforcement Learning of Single Legged Locomotion, IEEE International Conference of Robots and Systems, 2013.
- D. Borton et al. Personalized Neuroprosthetics, Science Translational Medicine, vol. 5, 2013.
- J. Germann et al. Soft Cell Simulator: A tool to study Soft Multi-Cellular Robots, IEEE Robio Conference, Shenzhen, China, 2013.

View [publications](#).

*Selected publications include publications which have been made known to the [editor](#). All members are kindly encouraged to inform the management team of new publications.



NCCR PRESS COVERAGE

- 3sat - Im Land der Roboter (07 Dec) [Read more](#)
- Documentary about RPG research on ARTE-Xenius (22 Nov) [French](#) - [German](#)
- Scientific American - The Friendly Drone (20 Nov) [Read more](#)
- World Economic Forum - Take-off time for friendly drone (19 Nov) [Read more](#)
Policy-makers should talk to experts about how to harness this new technology of 'autonomous aerial vehicles,' instead of clipping its wings By Dario Floreano.

More [press coverage](#) available through NCCR Robotics website



WHO IS WHO ?

Ezequiel Di Mario

I am 27 years old. I was born in Adrogué, a suburb of Buenos Aires, Argentina. I got an Electronic Engineer degree from the Buenos Aires Institute of Technology, and then moved to Lausanne where I have been working on my PhD at the Distributed Intelligent Systems and Algorithms Laboratory, EPFL. [Read more](#)

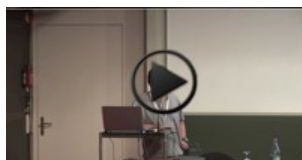


NEW VIDEOS (Soft Robotics Workshop Lectures)

Soft Robotics - Morphological Control as Guiding Principle...



Soft Robotics - Taming Highly Deformable Body...



Soft Robotics - Soft-Matter Electronics, Multifunctional...



Soft Robotics - Soft and Hard Rehabilitation Robots



Soft Robotics - Non-Conventional Compliant...



Soft Robotics - Tactile Sensor for an Octopus-like Soft Robotic...



NEW MEMBERS

Juan Manuel Florez Marin

([RRL-EPFL](#)) Juan Manuel Florez Marin is a postdoc at the Reconfigurable Robotics Lab (EPFL) studying soft robotics and wearable robotics. His main research focuses are Impedance Control, Medical Robotics and Physical Human-Robot Interaction.



Jemin Hwangbo

([ASL-ETH](#)) Jemin Hwangbo is a PhD student at the Swiss Federal Institute of Technology, Zurich (ETH) studying design and control of legged robotic systems. His research focuses on energy efficiency of dynamic gaits, high speed galloping and gait generation using reinforcement learning.



Ajay Tanwani

([LASA-EPFL](#)) Ajay Tanwani is a PhD student EPFL. His research focuses on learning challenging robot control tasks from humans by understanding their intention in the demonstrations. The main scientific subjects he investigates include inverse reinforcement learning, reinforcement learning, non-linear dynamical systems and stochastic optimal control.

