



New open-source monocular visual odometry algorithm

RPG have a new open-source monocular visual odometry algorithm called SVO ("Semi-direct Visual Odometry") [Read more](#)

NCCR Robotics on Facebook

NCCR Robotics is now on [Facebook](#). Come and join us, stay updated and become part of the network.



IEEE SMC Technical committee on Brain-Machine Interface

NCCR Robotics member Ricardo Chavarriaga (CNBI) is co-chairing the IEEE SMC Technical Committee on Brain-Machine Interfaces. Find out more about what they do and their goals. [Read more](#)



Flyability

NCCR Robotics Spin Fund Flyability has recently launched their [Newsletter](#). Subscribe and keep updated with their latest news.



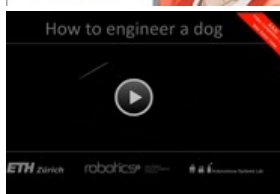
Young Scientist at WEF

NCCR Robotics member Stéphanie Lacour has been selected as one of 40 extraordinary scientists under the age of 40 at the 2014 World Economic Forum for her work on "stretchable electronics" [Read more](#)



AAAI 2014 Video Competition Award

ASL's "How to engineer a dog" won the [AAAI Video Competition 2014 Best Robot Video Award](#).



TEDxZurich

17 October 2014

Zurich

[Read more...](#)



Schnittstellen Gehirn...

24-25 October 2014

Basel

[Read more...](#)



ROBOTICS WORLD

Top News

[Drone startups: Anura pocket drone](#)

[Video: Rise of the nanorobot, with Brad Nelson](#)

[Safety concerns for collaborative robots](#)

[New quadcopter video points to a future for flying machines in entertainment](#)

[Self-driving car test sites](#)

World events

[Open Innovations Forum](#)

(Oct 14-16)

[CARPI2014 \(Oct 14-16\)](#)

[Robobusiness \(Oct 15-17\)](#)

[The Commercial UAV Show](#)

(21-22 Oct)

[ICSR \(Oct 27-29\)](#)

[Startup Office Hours: How to Get Ahead in the US Market](#)

(Oct 28-30)

[Robot Expo \(Oct 29-30\)](#)

[DARS \(2-5 Nov\)](#)

[LIFT Basel \(Nov 6-7\)](#)

[Humanoids 2014 \(Nov 18-20\)](#)

[Pro-Robot-Drone \(18-19 Nov\)](#)

External calls

[IMA Conference on Mathematics of Robotics](#)

External positions

[Tenure-track Position in Robotics, Harvard SEAS](#)

[Tenure-track Position in ultra-high precision robotics and manufacturing](#)

[Postdoc Opening in Soft Wearable Robotics at Harvard Biodesign Lab](#)

[Postdoctoral Fellow, Rehabilitation Institute of Chicago and Northwestern University](#)

Cool links



by Andrea
Crema from [TNE lab](#)

[International Space Station](#)

[Video Swarm of Autonomous](#)

Swiss ICT Award

5th November 2014

Luzern

[Read more...](#)



NCCR PRESS COVERAGE

CNN - The Chairless Chair, an invisible chair that you can wear

The chair that isn't there. [Read more](#)



RTS - Rencontre avec Grégoire Courtine

[Read more](#)



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



START UPS INSIDE SWISS ROBOTICS

Swiss Robotics

Swiss Robotics is an expanding and successful NCCR Robotics initiative that provides Swiss Start Ups with a unique opportunity to co-exhibit with NCCR Robotics at selected conferences and trade fairs. Discover some of these Start Ups:



Coppelia Robotics

Coppelia Robotics GmbH is a small Swiss based company active in the field of robotic simulation. Its flagship product V-REP, which stands for Virtual Robot Experimentation Platform, is a general-purpose... [Read more](#)



WHO IS WHO ?

Péter Fankhauser

Péter is Swiss-Hungarian and is 27 years old. He is a PhD student at [ASL](#) led by Roland Siegwart and a member of the legged robotics group, where they work on versatile quadrupedal robots such as their current prototype StarLETH. [Read more...](#)



NEW VIDEOS

SVO: Fast Semi-Direct Monocular Visual Odometry



Dynamic Walking 2014



NEW MEMBERS

[Micro-Robots Buzz around each other](#)

[Plastics Revolutionize Medical Implants](#)

[Self-healing mussels](#)

[Self-repairing running shoes made from 3D-printed protocells](#)

Useful links

[Technologist innovation explained](#)

[EU report on the laws governing robots in Europe and future guidelines for further laws](#)

NCCR Robotics Director

Prof. Dario Floreano

CONTACT

NCCR Robotics

Office ELG 231, Station 11
EPFL CH-1015 Lausanne

Switzerland

+41 21 693 69 39

nccr-robotics@epfl.ch

nccr-robotics.ch

IMPRESSUM

Publisher

NCCR Robotics Management
Team

Editor

Mayra Lirot

Web Editing

Mayra Lirot / Pascal Briod

Contributor

Linda Seward

Design

Alternative Communication SA /
Pascal Briod

Diego Pardo ([ADRL](#))

Diego's research interests are analysis and synthesis of motor skills in articulated / underactuated robots executing challenging tasks. He has experience in management of research projects and has participated as work package coordinator within European Consortiums.



DEPARTING MEMBERS

Julia Fink

Julia Fink ([CHILI](#)) completed her PhD in Human-Robot Interaction and left the NCCR Robotics at the end of August 2014. After 4 exciting years at EPFL, she is now open to take up new challenges both in the field... [Read more](#)



Bryan Schubert

Dr. Bryan Schubert ([LIS](#)) left EPFL at the end of July this year to take a position with Tesla Motors, Inc., where he will be working on advanced driver's assistance technologies.



Domen Novak

Dr. Domen Novak left ([SMS](#)) lab end of August 2014. he has been appointed to an assistant professorship at [University of Wyoming](#).



SELECTED NCCR PUBLICATIONS *

M. Bloesch, S. Omari, H. Sommer, P. Fankhauser, C. Gehring, J. Hwangbo, M. Hoepflinger, M. Hutter, and R. Siegwart. Fusion of Optical Flow and Inertial Measurements for Robust. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), (2014).

K. M. Digumarti, C. Gehring, S. Coros, J. Hwangbo, and R. Siegwart. Concurrent Optimization of Mechanical Design and Locomotion Control of a Legged Robot. International Conference on Climbing and Walking Robots (CLAWAR), 2014.

P. Fankhauser, M. Bloesch, C. Gehring, M. Hutter, and R. Siegwart. Robot-Centric Elevation Mapping with Uncertainty Estimates. International Conference on Climbing and Walking Robots (CLAWAR), (2014).

D. Floreano, A. Ijspeert and S. Schaal. Robotics and Neuroscience, in Current Biology, vol. 24, p. R910-R920 (2014).

C. Gehring, S. Coros, M. Hutter, M. Bloesch, P. Fankhauser, M. A. Hoepflinger, and R. Siegwart. Towards Automatic Discovery of Agile Gaits for Quadrupedal Robots. IEEE International Conference on Robotics and Automation (ICRA), pp. 4243–4248 (2014).

C. Gehring, G. Nuetzi, R. Diethelm, R. Siegwart, and R. I. Leine. An Evaluation of Moreau's time-stepping scheme for the simulation of a legged robot. ASME International Design Engineering Technical Conferences, (2014).

D. W. Haldane, P. Fankhauser, R. Siegwart, and R. S. Fearing. Detection of Slippery Terrain with a Heterogeneous Team of Legged Robots. IEEE International Conference on Robotics and Automation (ICRA), pp. 4576–4581 (2014).

M. Hutter, C. Gehring, M. Bloesch, M. Hoepflinger, P. Fankhauser, and R. Siegwart. Excitation and Stabilization of Passive Dynamics in Locomotion using Hierarchical Operational Space Control. IEEE International Conference on Robotics and Automation (ICRA), pp. 2977–2982, (2014).

M. Hutter, H. Sommer, C. Gehring, M. Hoepflinger, M. Bloesch, and R. Siegwart, "Quadrupedal locomotion using hierarchical operational space control. The International Journal of Robotics Research, vol. 33, no. 8, pp. 1062–1077, (May 2014).

S. Pfeifer, A. Pagel, R. Riener, H. Vallery. Actuator with Angle-Dependent Elasticity for Biomimetic Transfemoral Prostheses. IEEE/ASME Transactions on Mechatronics, (DOI: 10.1109/TMECH.2014.2337514) (2014)

N. Rotella, M. Bloesch, L. Righetti, and S. Schaal. State Estimation for a Humanoid Robot. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), (2014).

*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.

