



# Locomorph Summer School on Morphology and Morphosis in Animals and Robots 2012

23-27 August 2012  
University of Southern Denmark  
Odense, Denmark

## INVITATION

It is our great pleasure to invite you to the summer school on morphology and morphosis in animals and robots that we are organizing this coming summer at University of Southern Denmark. This will be an exceptional opportunity for you to learn about this broad and interdisciplinary field from leading scientists in robotics, biomechanics, biology, and embodied artificial intelligence.

The school is designed for graduate students of all levels. The school will be interdisciplinary and students with backgrounds in robot mechatronics, robot learning, biomechanics, or functional morphology (biology) are encouraged to apply. For detailed information on the summer school, speakers, and application procedure, please see the brief introduction below.

## CONTENTS

During this summer school, we will give an introduction into current knowledge and techniques in morphology and morphosis of animals and robots. Lectures will cover a wide range of relevant topics from biology, biomechanics, modular robotics, robot learning, and embodied artificial intelligence. Half the time will be dedicated to hands-on group work focussed on building robots using a provided robot construction kit to experiment with biomechanical models or study how these models can be transferred to robotics with the additional aid of learning techniques. You are encouraged to bring your own thesis work into play at the summer school. The overall aim of the summer school is

to provide the student with insights into morphology and morphosis in animals through modeling, and based on these insights either build robots that improve on the state of the art of robotics or implement physical robot models that then can be used to validate and gain further understanding of the biological systems on which they are based.

## CONFIRMED SPEAKERS

- Rolf Pfeifer, University of Zurich, Switzerland, embodied artificial intelligence
- André Seyfarth, Technical University of Darmstadt (previously University of Jena), Germany, biomechanics
- Auke Ijspeert, EPFL, Switzerland, robot learning and bioinspired robotics
- Peter Aerts, University of Antwerp, Belgium, functional morphology (biology)
- Kasper Stoy, University of Southern Denmark, modular robotics

## IMPORTANT DATES

- Application deadline: 8.5.2012 (extended)
- Notification of acceptance: 15.5.2012
- Summer school: 23.8.-27.8.2012

## HOW TO APPLY

Applications should be sent via email to Vibeke Nielsen at [vibeken@mmmi.sdu.dk](mailto:vibeken@mmmi.sdu.dk). Please state on a single page (11pt font):

- Your scientific background and degree
- Your motivation to come to this school
- The topic of your thesis
- Any prior knowledge in the relevant fields (see contents above)

Optional: CV with list of publications

The summer school is free, but you have to pay for your own accommodation, food, and transportation. We have reserved rooms at the CABINN Hotel where you can get a bed in a room with four beds, shared with other summerschool participants, for DKK 225 (€30) per night. If interested in this option, please let us know in your application.

## ORGANIZATION

The summer school is jointly organized by the Locomorph consortium, which is an FP7-funded consortium formed to increase our understanding of morphology and morphosis in animals and robots. The principle investigators (listed under speakers) will all play an important role in the summer school. The summer school is co-located with the Simulation of Adaptive Behavior Conference (<http://www.sab2012.org>), which will take place at the University of Southern Denmark right after the summer school.

For further information please visit our homepage: <http://locomorph.eu/summerschool>

On behalf of the Locomorph consortium,

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