

International Summer School on Humanoid Soccer Robots 2013

July 22nd-26th, Bonn, Germany

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Objective

The objective of the school is to give students deep insights into the currently leading approaches to bipedal locomotion, dynamic motion generation, environment perception, tactics, and team play. Lectures by leading experts will provide the necessary theoretical background for hands-on exercises with humanoid soccer robots.



Program

The program is based on three pillars:

Theory: Ranging from biomechanics, over compliant actuation, control of balance during walking and dynamic motion, robot state estimation, perception of the game situation, behavior control architectures, motion planning, and multi-agent systems.

Case studies: Successful humanoid soccer systems like the Standard Platform League team B-Human and the Humanoid League team NimbRo TeenSize will be presented.

Practical exercises: A soccer field and real humanoid soccer robots (NimbRo-OP, Darwin-OP, Nao) will be provided for hands-on experience. Participants are encouraged to also bring their own robots.

Social Activities

To facilitate informal interactions between participants, several social activities are planned.

Venue

Lectures and practical robot work will take place in the Computer Science Institute of University of Bonn.



Speakers

- Armin Hornung, University of Freiburg
- Moritz Maus, TU Darmstadt
- Christian Ott, DLR Oberpfaffenhofen
- Daniel Polani, University of Hertfordshire
- Thomas Röfer, DFKI/University of Bremen
- Nikos G. Tsagarakis, IIT, Genova
- Pierre-Brice Wieber, INRIA Rhône-Alpes

Registration

All participants must register for the school.

Advance registration until July 8th

Regular registration:	300 €
Graduate and PhD students:	150 €
Undergraduate students:	100 €

Acknowledgement

We gratefully acknowledge the support of The RoboCup Federation.