BioISI Research Seminar

BioISI
Biosystems and Integrative Sciences Institute

Evolutionary Robotics Moving Towards Real Hardware: the Robot Baby Project

Professor Gusz Eibein
University Amsterdam

As outlined in my recent paper [1], the field of evolutionary computing is entering a new phase as evolutionary algorithms that take place in hardware are developed, opening up new avenues towards autonomous machines that can adapt to their environment. In this talk I discuss a vision and a research programme about artificial evolution in physical, rather than digital, spaces. I outline the concept of EvoSphere, a robotic ecosystem that evolves in real space and real time and review on-going activities towards the first proof-of-concept implementation. I argue that constructing systems of self-reproducing machines will lead to a new, exciting mix of evolutionary computing, robotics, and artificial life with new challenges and opportunities

[1] A.E. Eiben and J. Smith, From evolutionary computation to the evolution of things, Nature, 521:476-482, 2015

Host: Pedro Mariano
(MAS-BioISI)

When: May 26 🕐 14h30
Where: Building C1, room 1.3.20
Faculdade de Ciências da Universidade de Lisboa -Campo Grande, Lisboa (Portugal)

BioISI http://bioisi.ciencias.ulisboa.pt/
Contact: bioisinfo@fc.ul.pt