



## Séminaires ISIR

Lundi 12 Mai 2014 à 11h00

A.E. (Gusz) Eiben

Campus Jussieu, 4 place Jussieu, Paris  
Salle de réunion H20

**Title :** Why is embodied evolution interesting?

**Abstract :** Evolutionary computing in the general sense is the art of “taming evolution”. After three decades of research we have the know-how of setting up artificial evolutionary processes in digital spaces and evolutionary algorithms have proved their power in solving optimization, design, and learning problems. In this talk I argue that the Next Big Thing is evolution in physical, rather than digital, spaces. In other words, I foresee a new exciting mix of evolutionary computing, robotics, and artificial life. This nascent field --The Evolution of Things-- offers different challenges and opportunities for these three areas and even other disciplines, such as biology or industrial design. On the long term it also raises fundamental questions regarding the ethics and the social impacts of this future technology.

**Short Bio :** Gusz Eiben is a professor of Computational Intelligence on the VU University Amsterdam and Visiting Professor in the Department of Electronics of the University of York, UK. His academic research lies within computational intelligence or natural computing with evolutionary computing as the binding factor, see the thematic overview on the right hand side of his web page. He has been involved in various European research projects: EvoNet I (Esprit 20996), EvoNet II (FP5, IST-1999-14087), DREAM (FP5, IST-1999-12679), NEW TIES (FP6-502386), SYMBRION (FP7-ICT-2007.8.2), EVOBODY (FP7-258334), OPTI-FOX (FP7-123456), AWARE (FP7-123456).

Further to academic research, he has worked in business intelligence R&D projects, including data warehousing and data mining for feature selection, creditability assessment, direct marketing, customer retention analysis, sensory data analysis, e-business, etc.