

International Conference on Neural Networks (ICANN 2012)

Workshop: Conscious and Unconscious Mental Functions

Date: September 10, 2012

Location : University of Lausanne, Switzerland

Aim and Scope

In the past decades, efforts have been made to better understand and model consciousness. Although many advances were achieved, there is still need to develop knowledge and gain consensus as to what the basic brain substrates and cognitive mechanisms underlying conscious mental processes are. Most of this research has focused on analyzing the conscious mind, whereas understanding non-conscious activity may greatly aid in the advancement of the understanding of higher level cognitive functions. This understanding is necessary to better define, model and construct theories of mind functioning and maybe artificial conscious devices.

This workshop aims at integrating contributions from different domains of research to deepen the understanding of the cognitive, biological, and psychological functions underlying consciousness. Topics will include:

- biological, computational and psychological models and theories of consciousness;
- philosophy and history of consciousness studies;
- relations among existing models;
- experimental measurements that support model and theory development;
- models of attention, creativity and memory functions related to consciousness;
- evolutionary analyses of attention and consciousness;
- studies of emotions related to consciousness;
- modelling unconscious versus conscious processing;
- relation of consciousness to mental pathology;
- machine consciousness;
- other related topics.

Organizers

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Speakers

- Harald Atmanspacher - Institute for Frontier Areas of Psychology, Freiburg, C.G. Jung-Institut and Collegium Helveticum, ETH Zürich and University of Zürich
- Azizi Ab Aziz - Vrije Universiteit, Amsterdam and Universiti Utara Malaysia(UUM)
- Antonio Chella - Università degli Studi di Palermo
- Marina Fiori - Université de Lausanne
- Stephen Grossberg - Boston University
- Germund Hesslow - Lund University, Sweden
- Henrik J. Jensen - Imperial College, London
- Jürgen Kurths - University of Potsdam and Humboldt University
- Riccardo Manzotti - Libera Università di Lingue e Comunicazione, Milan
- Charles Peck - IBM, T. J. Watson Research Center
- Paavo Pylkkanen - Skövde University College and University of Helsinki
- Ricardo Sanz - Universidad Politécnica de Madrid
- Roseli Wedemann - Universidade do Estado do Rio de Janeiro