

Conference on Sensing, Information and Decision at the Cellular Level

14 - 17 July 2015 Miramare, Trieste, Italy

The Abdus Salam International Centre for Theoretical Physics (ICTP) in cooperation with CNRS - GDRI Evolution, Regulation and Signaling, is organizing a **Conference on Sensing, Information and Decision at the Cellular Level**, which will be held at ICTP, Trieste, Italy, from **14** to **17 July 2015**.

The ability of cells to detect signals from the exterior, interpret them correctly, and take appropriate actions, is key to their success as individuals or as part of a multicellular organism. Evolution has endowed cells with sensory systems characterized by exquisite sensitivity, rapidity and reliability of response. One of the most interesting and recent developments of the molecular biology of sensory systems has been the recognition that these mechanisms are often much the same from amoebae to man. Underlying the variety is a remarkable unity, which motivates the search for general principles at the basis of their structure and function. The purpose of this workshop is to gather scientists at the forefront of the multidisciplinary field at the interface between physics, statistics, molecular biology, neurophysiology and cognitive science, with the aim of offering a refreshing view on the deep connection between signal transduction at the molecular level and the theory of information and decision-making.

PARTICIPATION

Scientists and students from all countries that are members of the United Nations, UNESCO or IAEA may attend the activity. As it will be conducted in English, participants must have an adequate working knowledge of this language. Although the main purpose of the Centre is to help researchers from developing countries through a programme of training activities within a framework of international cooperation, a limited number of students and post-doctoral scientists from developed countries are also welcome to attend.

As a rule, travel and subsistence expenses of the participants are borne by their home institutions. Every effort should be made by candidates to secure support for their fare (or at least half-fare). However, limited funds are available for some participants, who are nationals of, and working in, a developing country, and who less than 45 years of age. Such support is available only to those attending the entire college. There is no registration fee for attending the college.







Directors

Surya GANGULI Stanford University, USA

Massimo VERGASSOLA University of California at San Diego, USA

Local Organizers

Antonio CELANI ICTP, Trieste, Italy

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Speakers

D. Chklovskii (Simons foundation)

T. Emonet (Yale University)

A. Fairhall (University of Washington)

U. Gerland (Technical University of Munich)

> M. Howard (John Innes Center)

> > C. Rozell (Georgia Tech)

T. Sagawa (Tokyo University)

U. Seifert (Stuttgart University)

A. Seminara

HOW TO APPLY FOR PARTICIPATION

The online application form can be accessed on the activity's website: http://indico.ictp.it/event/a14300/

Once in the website, comprehensive instructions will guide you step-by-step, on how to fill out and submit the application form.

Deadline for requesting participation: **15 April 2015**

ACTIVITY SECRETARIAT:

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> **S. Still** (University of Hawaii)

P.R. ten Wolde (*) (AMOLF)

> A. Walczak (ENS Paris)

(*) to be confirmed

DEADLINE

for requesting participation

15 APRIL 2015

Trieste, December 2014