

Invitation to Seminar (WS 2013/2014)

# COMPUTATIONAL SYSTEMS BIOLOGY OF CANCER



J. Miró, 1941

## OBJECTIVE

Cancer is a remarkably complex and heterogeneous disease that involves multiple types of biological interactions across diverse scales. In order to unravel this puzzling health problem, Computational Systems Biology employs an experimental-theoretical integrative approach, in which interactions among components of a particular system are studied by means of diverse mathematical and computational techniques.

The seminar offers an introduction to key topics in the field, including data resources and analysis techniques, signalling networks and multiscale mathematical modelling. This will be illustrated with relevant applications in cancer biology and medicine. The seminar is intended for undergraduate and graduate students in mathematics, biology, physics, medical or computer sciences who are interested in this highly interdisciplinary application field.

## TIME AND LOCATION

The seminar will take place on 4 Monday afternoons **14:00-17:00**:

**25 Nov, 9 Dec, 20 Jan, 3 Feb**

Location: **INF-1096**, Computer Science Dept. of TU Dresden at Nöthnitzer Str. 46

**Kickoff meeting** and distribution of talks: **28 October**, 14:00-15:00, INF-1096

## ORGANIZERS

Alvaro Köhn-Luque, Michael Seifert, Andreas Deutsch, ZIH, TU Dresden

Barbara Klink, Institut für Klinische Genetik, TU Dresden

Haralambros Hatzikirou, cfAED, TU Dresden