

Lake Como School of Advanced Studies, 27 July–1 August 2025

website: isinp.github.io/isinp-4 isinp.lakecomoschool.org

The focus of this summer institute is to integrate empirical and theoretical knowledge across disciplines with the aim to understand in different contexts - from extensive data analyses and modeling approaches to clinical practice - how diverse physiological systems and subsystems dynamically interact to produce health and disease. This will be an interactive event with lectures ranging from physics, applied mathematics and biomedical engineering to neuroscience, physiology and clinical medicine, covering a range of physiologic systems from the cellular to the organ level, and will discuss the challenges, current frontiers and future developments in the emerging field of *Network Physiology*. The institute will address a diverse audience

of graduate students, postdocs, research scientists and faculty across a broad range of disciplines and fields, and will provide opportunities for the researchers to exchange new ideas and viewpoints, forge new collaborations and train the next generation of young scientists.

Invited Speakers

Krasimira Tsaneva-Atanasova

University of Exeter, UK

Natàlia Balagué

University of Barcelona, Spain

Ronny P. Bartsch

Bar-Ilan University, Israel

Thomas Beyer

Medical University of Vienna, Austria

Paul Bogdan

University of Southern California, USA

Luca Faes

University of Palermo, Italy

Flavio H. Fenton

Georgia Institute of Technology, USA

Susanna Gordleeva

Lobachevsky State University

of Nizhny Novgorod, Russia

Nandu Goswami

Mohammed Bin Rashid University of

Medicine, UAE

Sallie Gregson

Frontiers, Lausanne, Switzerland

Shlomo Havlin

Bar-Ilan University, Israel

James W. Holsapple

Boston University School of Medicine Boston Medical Center, USA

Yaron Ilan

Hebrew University, Israel Hadassah Medical Center, Israel

Plamen Ch. Ivanov

Boston University, USA

Viktor Jirsa

CNRS, Aix-Marseille University, France

Boris P. Kovatchev

University of Virginia, USA

Jürgen Kurths

Humboldt University, Germany

Ying-Cheng Lai

Arizona State University, USA

Helene M. Langevin

NIH, NCCIH, Bethesda, Maryland, USA

Klaus Lehnertz

Bonn University, Germany

Joseph Loscalzo

Brigham and Woman's Hospital Harvard Medical School, USA

Alan Macy

BIOPAC Systems, Inc, USA

Rosario Mantegna

Palermo University, Italy

J. Randall Moorman

University of Virginia, USA

Ulrich Parlitz

Max Planck Institute, Germany

Sergi Garcia-Retortillo

Wake Forest University, USA

Rossella Rizzo

University of Palermo, Italy

Eckehard Schöll

Berlin Institute of Technology,

BCCN, Germany

Sebastiano Stramaglia

University of Bari, Italy

Misako Takayasu

Institute of Science Tokyo, Japan

Robert J. Thomas

Beth Israel Deaconess Medical Center, Harvard Medical School, USA

Bettina Weigelin

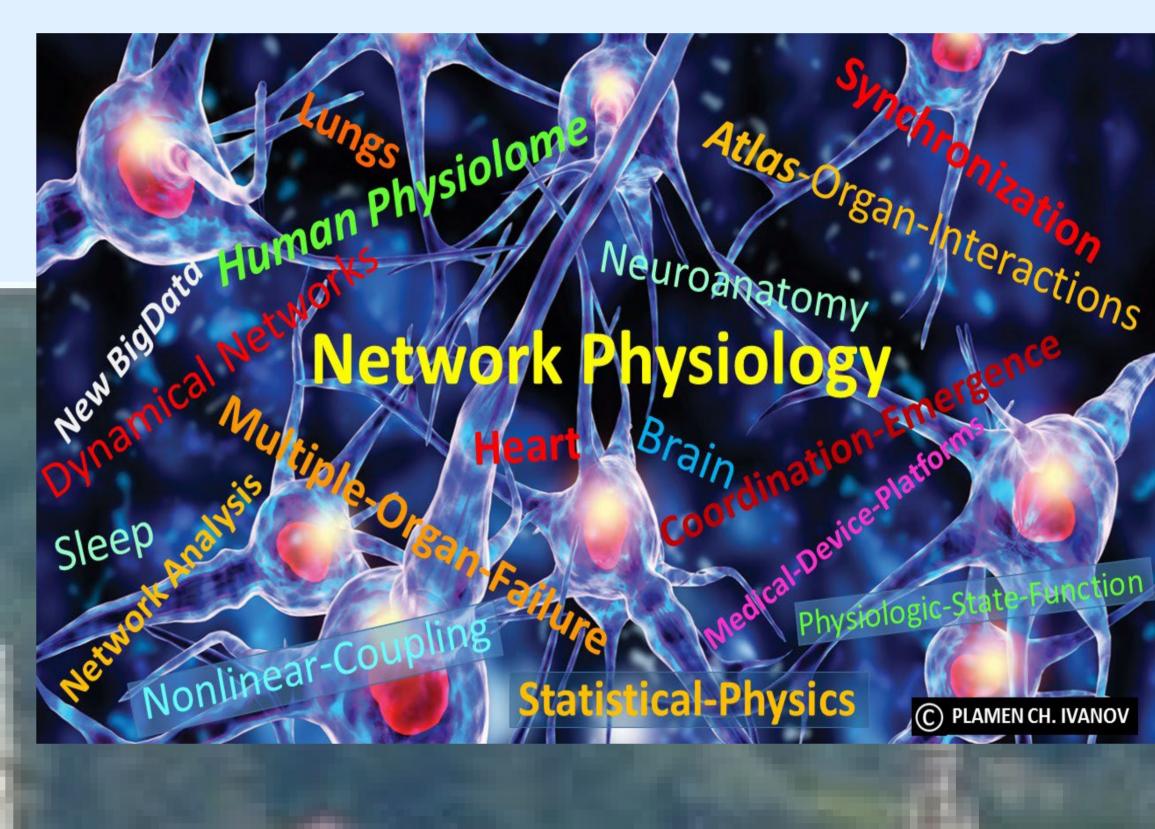
University of Tübingen, Germany

Alexey Zaikin

University College London, UK

Xiyun Zhang

Jinan University, Guangdong, China



Institute Organizer and Director



Plamen Ch. Ivanov Director, Keck Laboratory for Network Physiology



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Fondazione **Alessandro Volta**



Frontiers in Network Physiology