

2020 NCTS



**NCTS**  
National Center for Theoretical Sciences

# Workshop<sub>on</sub> analysis and its applications in biology and physiology

**Date:** 1/2-4/2020

**Venue:** R202, Astronomy-Mathematics Building, NTU

Conventionally, analysis plays a crucial role to justify PDE (partial differential equation) models which come from various fields of biology and physiology. However, due to the complexity of recent achievements in biological networks, protein structures and complex fluids, traditional PDE models are not sufficient to fit the need and new mathematical models have to be developed. Analytical techniques of variational and statistical methods may provide tools to derive mathematical models for the studies of structural bioinformatics, drug discovery and data mining. The main goal of the workshop is to discuss the biological models of PDE, the solving methods (analytical and numerical methods) and the relation of mathematical results and biological significance. The workshop will give an opportunity for researchers in related areas to share and discuss their current research ideas.

## Invited Speakers:

Luigi Catacuzzeno	University of Perugia
Shu-Wei Chang	National Taiwan University
Chiun-Chuan Chen	National Taiwan University
Ren-Shiang Chen	Tunghai University
Cheng-Ying Chou	National Taiwan University
Tom Chou	University of California Los Angeles
Maria Rita D'Orsogna	California State University at Northridge
Bob Eisenberg	Rush University
Nir Gavish	Israel Institute of Technology
Tzyy-Leng Horng	Feng Chia University
Chun-Hsiung Hsia	National Taiwan University
Chia-Yu Hsieh	The Chinese University of Hong Kong
Chiun-Chang Lee	National Tsing Hua University
Joyce Tzychiaio Lin	California Polytechnic State University
Chun Liu	Illinois Institute of Technology
Jinn-Liang Liu	National Tsing Hua University
Min-Jhe Lu	Illinois Institute of Technology
Kumar Saurabh	National Taiwan University
Tony Wen-Hann Sheu	National Taiwan University
Meng Li Tsai	National Ilan University
Yuan-nan Young	New Jersey Institute of Technology

## Organizers:

Ming-Chih Lai	National Chiao Tung University
Tai-Chia Lin	National Taiwan University
Chun Liu	Illinois Institute of Technology

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