

Workshop on Control, Inversion and Numerics for PDEs

C I N - P D E 2 0 2 3
ERLANGEN - SHANGHAI



Friedrich-Alexander-Universität
Research Center for
Mathematics of Data | MoD



復旦大學
FUDAN UNIVERSITY



Friedrich-Alexander-Universität
DYNAMICS, CONTROL,
MACHINE LEARNING
AND NUMERICS

TUE. AUGUST 1, 2023

- 09:00 - 09:20H Opening
Enrique Zuazua, Zhen Lei
- 09:20 - 09:30H Photo shoot
- 09:30 - 10:15H Exact controllability for a refined stochastic wave equation
Qi Lü, SCU
- 10:20 - 10:35H Coffee/Tea break
- 10:35 - 11:20H Domain decomposition in optimal control problems for PDEs
Günter Leugering, FAU
- 11:25 - 12:10H Linearized inverse Schrödinger potential problems at a large wavenumber
Shuai Lu, Fudan

WED. AUGUST 2, 2023

- 09:00 - 09:40H Long time dynamics of two dimensional Euler and Navier Stokes in high Reynolds number regime
Hao Jia, University of Minnesota
- 09:45 - 10:25H Optimal control of critical wave equations
Hannes Meinlschmidt, FAU
- 10:30 - 10:45H Coffee/Tea break
- 10:45 - 11:25H On the construction of exact control for the wave equation
Yi Zhou, Fudan
- 11:30 - 12:10H Inverse design for some systems of conservation laws
Nicola De Nitti, FAU DCN-AvH

THU. AUGUST 3, 2023

- 09:00 - 09:40H Feedback stabilization and inverse problem for a nonlocal transport equation
Zhiqiang Wang, Fudan
- 09:45 - 10:25H Topological derivative method for control and design on networks.
Jan Sokolowski, Université de Lorraine
- 10:30 - 10:45H Coffee/Tea break
- 10:45 - 11:25H Minimal time for null-controllability of 1-D linear hyperbolic systems of balance laws
Long Hu, SDU
- 11:30 - 12:10H Control and Machine Learning
Enrique Zuazua, FAU

FRI. AUGUST 4, 2023

- 09:00 - 09:40H An inverse boundary value problem for a nonlinear elastic wave equation
Jian Zhai, Fudan
- 09:45 - 10:25H Physics-informed neural networks for non-smooth PDE-constrained optimization problems
Yongcun Song, FAU
- 10:30 - 10:45H Coffee/Tea break
- 10:45 - 11:25H The inverse problem of the wave equation
Xi Chen, Fudan
- 11:30 - 12:10H Exact boundary controllability of nodal profile with nonuniform steady states for quasilinear hyperbolic systems
Ke Wang, Donghua University
- 12:15 - 12:30H Closing
Yue Wang, Peng Qu

WHEN

Tuesday August 01 - Friday August 04, 2023

WHERE

On-site / Online

Germany

09:00 - 12:15H

Room **H13**. Johann-Radon-Hörsaal.
FAU, Friedrich-Alexander-Universität Erlangen-Nürnberg
Cauerstraße 11, 91058 Erlangen

China

15:00 - 18:15H

Room **1801**. Guanghua East Main Building.
光华楼东主楼 Fudan University
Handan Road 220. 200433 Shanghai

Online

Zoom meeting link: shorturl.at/hmDQU

Meeting ID: **640 7719 0955**

PIN: **858411**

Scientific Committee

FAU, Friedrich-Alexander-Universität Erlangen-Nürnberg (Germany)

- Enrique Zuazua
- Günter Leugering

Fudan University (Shanghai, China)

- Tatsien Li
- Zhen Lei

Organizers

FAU, Friedrich-Alexander-Universität Erlangen-Nürnberg (Germany)

- Yue Wang

Fudan University (Shanghai, China)

- Peng Qu

