

AI4Science workshop

Report of Contributions

Contribution ID: 1

Type: **not specified**

Arrival and Registration

Monday 18 September 2023 09:20 (30 minutes)

Contribution ID: 2

Type: **not specified**

Welcome and JRC introduction

Monday 18 September 2023 09:50 (20 minutes)

Presenters: STOECKER, Horst (GSI); Dr STEINHEIMER, Jan (Frankfurt Institute for Advanced Studies); Dr ZHOU, Kai (FIAS, Goethe-University Frankfurt am Main)

Contribution ID: 3

Type: **not specified**

MAGIC

Presenter: STOECKER, Horst (GSI)

Contribution ID: 4

Type: **not specified**

A Physics-based neural network reconstruction of the dense matter equation of state

Monday 18 September 2023 11:30 (30 minutes)

Presenter: SOMA, Shriya

Contribution ID: 5

Type: **not specified**

AI for High energy heavy Ion collisions

Monday 18 September 2023 12:00 (30 minutes)

Presenter: OMANA KUTTAN, Manjunath (Frankfurt Institute for Advanced Studies)

Contribution ID: 6

Type: **not specified**

Seek for the next trend for autonomous driving research at the turning point

Monday 18 September 2023 14:00 (30 minutes)

Presenter: SHENG, Kai (Xidian)

Contribution ID: 7

Type: **not specified**

Message passing algorithm and its application in ISAR Imaging

Monday 18 September 2023 14:30 (30 minutes)

Presenter: KANG, Hailong

Contribution ID: 8

Type: **not specified**

Modulation recognition

Monday 18 September 2023 15:00 (30 minutes)

Presenter: DONG, Chunxi

Contribution ID: 9

Type: **not specified**

Climate change and Energy-Networks

Monday 18 September 2023 16:00 (30 minutes)

Presenter: SCHLOTT, Markus (FIAS)

Contribution ID: 10

Type: **not specified**

Optimal Power Flow in Highly Renewable Power System Based on Attention Neural Networks

Monday 18 September 2023 16:30 (30 minutes)

Presenter: LI, Chen (FIAS)

Contribution ID: **11**

Type: **not specified**

Mean field model and mean field game

Monday 18 September 2023 17:00 (30 minutes)

Presenter: BO, Lijun (Xidian)

Contribution ID: 12

Type: **not specified**

AI for Seismology

Tuesday 19 September 2023 10:00 (30 minutes)

Presenter: SRIVASTAVA, Nishtha (FIAS)

Contribution ID: 13

Type: **not specified**

SAIPy: A Python Package for Single-Station Earthquake Monitoring using Deep Learning

Tuesday 19 September 2023 10:30 (30 minutes)

Presenter: CHAKRABORTY, Megha (FIAS)

Contribution ID: 14

Type: **not specified**

A Deep Learning Approach for Large Earthquake Monitoring using High Rate-Global Navigation Satellite System Data

Tuesday 19 September 2023 11:30 (30 minutes)

Presenter: QUINTEROS, Claudia (FIAS)

Contribution ID: 15

Type: **not specified**

Testing the Potential of Deep Learning in Earthquake Forecasting

Tuesday 19 September 2023 12:00 (30 minutes)

Presenter: KÖHLER, Jonas (FIAS)

Contribution ID: 16

Type: **not specified**

Near field ISAR Imaging Method

Tuesday 19 September 2023 14:00 (30 minutes)

Presenter: FU, Jixiang (FIAS)

Contribution ID: 17

Type: **not specified**

Amplitude-Phase retrieval for Terahertz Holography with Physics-Informed Deep Learning

Tuesday 19 September 2023 15:00 (30 minutes)

Presenter: XIAN, Mingjun (FIAS)

Contribution ID: 18

Type: **not specified**

Application of PINNs to the spatiotemporal spread of Infectious diseases

Tuesday 19 September 2023 16:00 (30 minutes)

Presenter: SHUAI, Han (FIAS)

Contribution ID: 19

Type: **not specified**

Machine learning combined with imaging for disease detection

Tuesday 19 September 2023 16:30 (30 minutes)

Presenter: LYU, Ruichan (Xidian)

Contribution ID: 20

Type: **not specified**

Address from the Director of FIAS

Wednesday 20 September 2023 09:30 (30 minutes)

Presenter: ELSEN, Eckhard (Deutsches Elektronen-Synchrotron (DE))

Contribution ID: 21

Type: **not specified**

Combining Invariant and Equivariant Representations Using Contrastive and Predictive Learning

Wednesday 20 September 2023 10:00 (30 minutes)

Presenter: XU, Xia (FIAS)

Contribution ID: 22

Type: **not specified**

CRE: Circle relationship embedding of patches in vision transformer

Wednesday 20 September 2023 10:30 (30 minutes)

Presenter: YU, Zhengyang (FIAS)

Contribution ID: 23

Type: **not specified**

Identifying lightning structures via machine learning

Wednesday 20 September 2023 11:30 (30 minutes)

Contribution ID: 24

Type: **not specified**

Approximating Nash equilibrium for production control

Wednesday 20 September 2023 12:00 (30 minutes)

Presenter: LI, Tongqing (Xidian)

Contribution ID: 25

Type: **not specified**

Space target 3D reconstruction and attitude estimation

Wednesday 20 September 2023 14:00 (30 minutes)

Presenter: XU, Dan (Xidian)

Contribution ID: 26

Type: **not specified**

Odor perceptron under uncontrolled environment

Wednesday 20 September 2023 14:30 (30 minutes)

Presenter: LIU, Taoping (Xidian)

Contribution ID: 27

Type: **not specified**

Speech emotion recognition

Wednesday 20 September 2023 15:00 (30 minutes)

Presenter: GU, Yu (Xidian)

Contribution ID: 28

Type: **not specified**

Radar remote sensing interpretation and application

Wednesday 20 September 2023 16:00 (30 minutes)

Presenter: REN, Bo (Xidian)

Contribution ID: **29**

Type: **not specified**

TBA

Wednesday 20 September 2023 16:30 (30 minutes)

Presenter: EL SAYED, Omar (FIAS)

Contribution ID: **30**

Type: **not specified**

Deep Learning for Semiconductor Materials

Wednesday 20 September 2023 17:00 (30 minutes)

Presenter: XIE, Yong (Xidian)

Contribution ID: 31

Type: **not specified**

Bayesian inference for mechanical stress estimation in developmental biology

Friday 22 September 2023 10:00 (30 minutes)

Presenter: LANGE, Zoe (FIAS)

Contribution ID: 32

Type: **not specified**

Investigating mechanisms of biomolecular self-organization with computational intelligence

Friday 22 September 2023 11:30 (30 minutes)

Zoom talk

Presenter: COVINO, Roberto (FIAS)

Contribution ID: **33**

Type: **not specified**

Closing

Friday 22 September 2023 12:00 (30 minutes)

Contribution ID: 34

Type: **not specified**

General Introduction of Xidian University and Some Recent Research work in AI for Science.

Monday 18 September 2023 10:10 (50 minutes)

Presenter: SHEN, Bazhong

Contribution ID: 35

Type: **not specified**

The emergence of neural representations

Friday 22 September 2023 10:30 (30 minutes)

Presenter: KASCHUBE, Matthias (FIAS)