

# INTERNATIONAL CONFERENCE ON COMPUTATIONAL SCIENCE - ICCS 2020

## Track: Agent-Based Simulations, Adaptive Algorithms and Solvers (ABS-AAS)

Date: 4 June 2020

| Time                                     | #   | Title & Authors  |
|--|-----|--|
| Part I - Adaptive Algorithms and Solvers |     |  |
| 09:30 - 10:00                            | 96  | Design of Loss Functions for Solving Inverse Problems using Deep Learning<br><i>Jon Ander Rivera, David Pardo and Elisabete Alberdi</i>                                |
| 10:00 - 10:30                            | 284 | A block preconditioner for scalable large scale finite element incompressible flow simulations<br><i>Damian Goik and Krzysztof Banaś</i>                               |
| 10:30 - 11:00                            | 251 | Hypergraph grammar-based model of adaptive bitmap compression<br><i>Gregorz Soliński, Maciej Woźniak, Jakub Ryzner, Albert Mosiałek and Anna Paszyńska</i>             |
| 11:00 - 11:30                            | 115 | Computational complexity of hierarchically adapted meshes<br><i>Marcin Skotniczny</i>  |
| 11:30 - 12:00                            | 366 | Simulation of Neurotransmitter Flow in Three Dimensional Model of Presynaptic Bouton<br><i>Andrzej Bielecki and Maciej Gierdziewicz</i>                                |
| 12:00 - 12:30                            |     | Lunch Break  |
| Part II - Agent-based Simulations        |     |  |
| 12:30 - 13:00                            | 484 | An agent-based simulation of the spread of Dengue fever<br><i>Imran Mahmood, Mishal Jahan, Derek Groen, Aneela Javed and Faisal Shafait</i>                            |
| 13:00 - 13:30                            | 580 | Asynchronous Actor-based Approach to Multiobjective Hierarchical Strategy<br><i>Michał Idzik, Aleksander Byrski, Wojciech Turek and Marek Kisiel-Dorohinicki</i>       |
| 13:30 - 14:00                            | 397 | Scalable Signal-based Simulation of Autonomous Beings in Complex Environments<br><i>Mateusz Paciorek, Agata Bogacz and Wojciech Turek</i>                              |
| 14:00 - 14:30                            | 337 | Integrating agent-based modelling with copula theory: preliminary insights and open problems<br><i>Peter Fratrič, Giovanni Sileno, Tom van Engers and Sander Klous</i> |
| 14:30 - 15:00                            | 323 | MeshingNet: A New Mesh Generation Method based on Deep Learning<br><i>Zheyang Zhang, Yongxing Wang, Peter Jimack and He Wang</i>                                       |
| 15:00 - 15:30                            | 529 | A Novel Bio-inspired Hybrid Metaheuristic for Unsolicited Bulk Email Detection<br><i>Tushaar Gangavarapu, Jaidhar C.D.</i>   |