Augstas veiktspējas skaitļošanas izmantošana skaitliskā modelēšanā/Use of High Performance Computing in Numerical Simulations

Report of Contributions

Contribution ID: **1**   Type: **Oral presentation**

Simulation of liquid metal MHD with free surface

Thursday, 22 February 2024 10:10 (20 minutes)

Acknowledgements

Keywords

Primary author: DZELME, Valters (University of Latvia)

Presenter: DZELME, Valters (University of Latvia)

Session Classification: Numerical Simulations

Track Classification: Numerical Simulations

Contribution ID: **2**   Type: **Oral presentation**

Modeling of hydrogen production on stepped surfaces of SrTiO3 perovskite nanoparticles - ab initio computational study

Thursday, 22 February 2024 10:30 (20 minutes)

Acknowledgements

Keywords

Primary author: SOKOLOV, Maksim (Institute of Solid State Physics, University of Latvia)

Co-authors: A. KOSTOMIN, Eugene (Institute of Solid State Physics, University of Latvia); ZVE-JNIEKS, Guntars (Institute of Solid State Physics, University of Latvia); A. MASTRIKOV, Yuri (Institute of Solid State Physics, University of Latvia)

Presenter: SOKOLOV, Maksim (Institute of Solid State Physics, University of Latvia)

Session Classification: Numerical Simulations

Track Classification: Numerical Simulations

Contribution ID: **3**   Type: **Oral presentation**

Numerical modeling of dipolar quantum gases: from Bose-Einstein condensates to supersolids

Thursday, 22 February 2024 10:50 (20 minutes)

Acknowledgements

Keywords

Primary author: BALAZ, Antun (Institute of Physics Belgrade, Serbia)

Presenter: BALAZ, Antun (Institute of Physics Belgrade, Serbia)

Session Classification: Numerical Simulations

Track Classification: Numerical Simulations

Contribution ID: **4**   Type: **Oral presentation**

OpenFOAM Simulation of Fiber Concrete Flow

Thursday, 22 February 2024 11:10 (20 minutes)

Acknowledgements

Keywords

Primary author: HERMMANN, Heiko (Tallinn University of Technology (TalTech))

Presenter: HERMMANN, Heiko (Tallinn University of Technology (TalTech))

Session Classification: Numerical Simulations

Track Classification: Numerical Simulations

Contribution ID: **5**   Type: **Oral presentation**

Numerical analysis of heat exchange in a double layer system with opposing fluid flow

Thursday, 22 February 2024 11:30 (20 minutes)

Acknowledgements

Keywords

Primary author: RIBICKIS, Valters (University of Latvia)

Co-author: DZELME, Valters (University of Latvia)

Presenter: RIBICKIS, Valters (University of Latvia)

Session Classification: Numerical Simulations

Track Classification: Numerical Simulations

Contribution ID: **6** Type: **Oral presentation**

HPC demonstration in practice. Jupyterhub example. Questions and answers (in Latvian)

Thursday, 22 February 2024 11:50 (20 minutes)

Acknowledgements

Keywords

Primary author: JEŠKINS, Jurijs (University of Latvia)

Presenter: JEŠKINS, Jurijs (University of Latvia)

Session Classification: Numerical Simulations

Track Classification: Numerical Simulations

Contribution ID: **7**   Type: **Oral presentation**

Numerical simulations of air disinfection using a UV purifier

Thursday, 22 February 2024 12:50 (20 minutes)

Acknowledgements

Keywords

Primary author: SABANSKIS, Andrejs (University of Latvia)

Co-authors: JAKOVIČS, Andris (University of Latvia);   VIDULEJS, Dagnis Daniels (University of Latvia);   VIRBULIS, Jānis (University of Latvia)

Presenter: SABANSKIS, Andrejs (University of Latvia)

Session Classification: Numerical Simulations

Track Classification: Numerical Simulations

Contribution ID: **8**   Type: **Oral presentation**

Dam installation assessment: a hydrogeological modeling approach for Lielais Pelečāres mire and Cena mire

Thursday, 22 February 2024 13:10 (20 minutes)

Acknowledgements

Keywords

Primary author: TIMUHINS, Andrejs (University of Latvia)

Co-authors: SEŅŅIKOVS, Juris (University of Latvia);   BETHERS, Uldis (University of Latvia)

Presenter: TIMUHINS, Andrejs (University of Latvia)

Session Classification: Numerical Simulations

Track Classification: Numerical Simulations

Contribution ID: **9**

Type: **Oral presentation**

Investigation of the scalability of OpenFOAM hydrodynamic simulations on HPC clusters

Thursday, 22 February 2024 13:30 (20 minutes)

Acknowledgements

Keywords

Primary author: SUROVOVS, Kirils (University of Latvia)

Co-author: VIRBULIS, Jānis (University of Latvia)

Presenter: SUROVOVS, Kirils (University of Latvia)

Session Classification: Numerical Simulations

Track Classification: Numerical Simulations

Contribution ID: **10**   Type: **Oral presentation**

Optimization of execution on HEMUS supercomputer

Thursday, 22 February 2024 13:50 (20 minutes)

Acknowledgements

Keywords

Primary author: Prof. ATANASSOV, Emanouil (Institute of Information and Communication Technologies, Bulgarian Academy of Sciences)

Presenter: Prof. ATANASSOV, Emanouil (Institute of Information and Communication Technologies, Bulgarian Academy of Sciences)

Session Classification: Numerical Simulations

Track Classification: Numerical Simulations