

BioDynaMo Workshop on Agent-Based Modeling



Report of Contributions

Contribution ID: 1

Type: **not specified**

Introduction

Friday, November 19, 2021 10:00 AM (5 minutes)

Presenter: BAUER, Roman

Contribution ID: 2

Type: **not specified**

The BioDynaMo Platform: Current State and Future Developments

Friday, November 19, 2021 10:05 AM (15 minutes)

Presenters: RADEMAKERS, Fons (CERN); BREITWIESER, Lukas (CERN, ETH Zurich)

Contribution ID: 3

Type: **not specified**

Emergence and Macroscopic Behaviour ExtRaction (EMBER): a tool for bifurcation analysis of agent-based models

Friday, November 19, 2021 10:40 AM (20 minutes)

Presenter: SKELDON, Anne (University of Surrey)

Contribution ID: 4

Type: **not specified**

From multicellular to tissue biomechanics simulations in cancer using multiscale finite element and agent-based models

Friday, November 19, 2021 10:20 AM (20 minutes)

Presenter: VAVOURAKIS, Vasileios (University of Cyprus / UCL)

Contribution ID: 5

Type: **not specified**

Agent-based modelling of radiation-induced lung fibrosis

Friday, November 19, 2021 11:30 AM (20 minutes)

Presenter: COGNO, Nicolo (TU Darmstadt / GSI Helmholtz Centre)

Contribution ID: 6

Type: **not specified**

Agent-based modelling of multi-state biomolecules

Friday, November 19, 2021 11:50 AM (20 minutes)

Presenter: STEFAN, Melanie (Edinburgh University)

Contribution ID: 7

Type: **not specified**

CryoDynaMo for cryopreservation simulations

Friday, November 19, 2021 12:10 PM (20 minutes)

Presenter: JENNINGS, Jack (Newcastle University)

Contribution ID: **8**

Type: **not specified**

Cryopreservation: a Time Travel Machine

Friday, November 19, 2021 1:30 PM (20 minutes)

Presenter: RISCO, Ramon (University of Seville)

Contribution ID: 9

Type: **not specified**

Leveraging Machine Learning for efficient agent-based simulations and application on biomedical cases

Friday, November 19, 2021 1:50 PM (20 minutes)

Presenter: ALIYEV, Taghi (SCImPULSE Foundation)

Contribution ID: **10**

Type: **not specified**

Open discussion on presentations and overlap

Friday, November 19, 2021 2:10 PM (20 minutes)

Contribution ID: 11

Type: **not specified**

Development and calibration of an agent-based model of tumor growth

Friday, November 19, 2021 2:30 PM (20 minutes)

Presenter: LIMA, Ernesto (The University of Texas at Austin)

Contribution ID: 12

Type: **not specified**

Agent-Based Modeling of Financial Markets

Friday, November 19, 2021 2:50 PM (20 minutes)

Primary author: DEBIE, Philippe (WUR)

Presenter: DEBIE, Philippe (WUR)

Contribution ID: 13

Type: **not specified**

Agent-based models for socioeconomic simulations

Friday, November 19, 2021 3:30 PM (20 minutes)

Presenter: PIJPERS, Frank (University of Amsterdam / Statistics Netherlands)

Contribution ID: 14

Type: **not specified**

Modelling of mosquito borne diseases and ML applications to their forecast

Friday, November 19, 2021 3:50 PM (20 minutes)

Presenter: COELHO, Flavio (University of Geneva)

Contribution ID: 15

Type: **not specified**

Individual-based mathematical model of HIV transmission and its implementation for Malawi

Friday, November 19, 2021 4:10 PM (20 minutes)

Presenter: ESTILL, Janne Anton Markus (University of Geneva)

Contribution ID: 16

Type: **not specified**

Knowledge Transfer and IP in academic and industrial research

Friday, November 19, 2021 4:30 PM (20 minutes)

Presenter: DOLS, Han Hubert (CERN)

Contribution ID: 17

Type: **not specified**

Concluding remarks

Friday, November 19, 2021 4:50 PM (10 minutes)

Presenter: BAUER, Roman

Contribution ID: **18**

Type: **not specified**

Open discussion on presentations and opportunities

Friday, November 19, 2021 5:00 PM (30 minutes)

Contribution ID: **19**

Type: **not specified**

Parallelised optimisation with BioDynaMo

Friday, November 19, 2021 11:00 AM (10 minutes)

Presenter: HESAM, Ahmad (CERN)

Contribution ID: 20

Type: **not specified**

Improving the continuum modelling within BioDynaMo

Friday, November 19, 2021 3:10 PM (10 minutes)

Presenter: DUSWALD, Tobias

Contribution ID: 21

Type: **not specified**

Epidemiological simulations with BioDynaMo

Presenter: DUSWALD, Tobias