

BioDynaMo Workshop on Agent-Based Modeling



Report of Contributions

Contribution ID: 1

Type: **not specified**

Introduction

Friday 19 November 2021 10:00 (5 minutes)

Presenter: BAUER, Roman

Contribution ID: 2

Type: **not specified**

The BioDynaMo Platform: Current State and Future Developments

Friday 19 November 2021 10:05 (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 19 November 2021 10:40 (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 19 November 2021 10:20 (20 minutes)

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

Contribution ID: 5

Type: **not specified**

Agent-based modelling of radiation-induced lung fibrosis

Friday 19 November 2021 11:30 (20 minutes)

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

Contribution ID: 6

Type: **not specified**

Agent-based modelling of multi-state biomolecules

Friday 19 November 2021 11:50 (20 minutes)

Presenter: STEFAN, Melanie (Edinburgh University)

Contribution ID: 7

Type: **not specified**

CryoDynaMo for cryopreservation simulations

Friday 19 November 2021 12:10 (20 minutes)

Presenter: JENNINGS, Jack (Newcastle University)

Contribution ID: 8

Type: **not specified**

Cryopreservation: a Time Travel Machine

Friday 19 November 2021 13:30 (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 19 November 2021 13:50 (20 minutes)

Presenter: ALIYEV, Taghi (SCImPULSE Foundation)

Contribution ID: **10**

Type: **not specified**

Open discussion on presentations and overlap

Friday 19 November 2021 14:10 (20 minutes)

Contribution ID: **11**

Type: **not specified**

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

Friday 19 November 2021 14:30 (20 minutes)

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

Contribution ID: 12

Type: **not specified**

Agent-Based Modeling of Financial Markets

Friday 19 November 2021 14:50 (20 minutes)

Author: DEBIE, Philippe (WUR)

Presenter: DEBIE, Philippe (WUR)

Contribution ID: **13**

Type: **not specified**

Agent-based models for socioeconomic simulations

Friday 19 November 2021 15:30 (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 19 November 2021 15:50 (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 19 November 2021 16:10 (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 19 November 2021 16:30 (20 minutes)

Presenter: DOLS, Han Hubert (CERN)

Contribution ID: 17

Type: **not specified**

Concluding remarks

Friday 19 November 2021 16:50 (10 minutes)

Presenter: BAUER, Roman

Contribution ID: **18**

Type: **not specified**

Open discussion on presentations and opportunities

Friday 19 November 2021 17:00 (30 minutes)

Contribution ID: **19**

Type: **not specified**

Parallelised optimisation with BioDynaMo

Friday 19 November 2021 11:00 (10 minutes)

Presenter: HESAM, Ahmad (CERN)

Contribution ID: 20

Type: **not specified**

Improving the continuum modelling within BioDynaMo

Friday 19 November 2021 15:10 (10 minutes)

Presenter: DUSWALD, Tobias

Contribution ID: **21**

Type: **not specified**

Epidemiological simulations with BioDynaMo

Presenter: DUSWALD, Tobias