

Session Program

5-7 Oct 2021

**9th International Conference on Modeling
and Simulation of Metallurgical Processes in
Steelmaking - STEELSIM2021**

***T_11 Integration of AI & modeling & data
mining***

Virtual Conference

Wednesday 6 October

15:10

T_11 Integration of AI & modeling & data mining

Session | **Location:** Room 3 | **Convener:** Prof. Jesper Henri Hattel

15:10-15:30 Metallurgical Data Science for Steel Industry

Speaker

Dr Bogdan Nenchev

15:30-15:45

Implementation of a surface-to-surface model for implicitly solved multiple one-dimensional simulations

Speaker

Mr Andreas Rath

15:45-16:00

Digitalization and Software Support of the Electric Arc Furnace Process

Speaker

Dr Vito Logar

16:00-16:15

Estimation of the bath temperature in an electric arc furnace using operational data and fuzzy modelling approach

Speaker

Dr Vito Logar

16:15-16:30

Probabilistic EAF charge mix optimization using machine learning based scrap characterization

Speaker

Dr Christoph Kirmse

16:30

Thursday 7 October

10:20

T_11 Integration of AI & modeling & data mining

Session | **Location:** Room 3 | **Convener:** Prof. Hongbiao Dong

10:20-10:40

Digital twin for continuous casters - Optimizing production with modeling and simulation methods

Speaker

Mr Reinhold Leitner

Location

Room 3

10:40-10:55

Big data handling in process surveillance and quality control of secondary metallurgical processes

Speaker

Dr Christine Gruber

Location

Room 3

10:55-11:10

Optimization of integrated steel plants operation using the m.simtop strategic planning platform

Speaker

Dr Bernd Weiss

Location

Room 3

11:10

13:00

T_11 Integration of AI & modeling & data mining

Session | **Location:** Room 3 | **Convener:** Dr Chinnapat Panwiswas

13:00-13:20

Digital Twin of Steelmaking and -refining Process by On-Line Thermodynamic and Kinetic Model

Speaker

Dr Anthony Nicholas Grundy

13:20-13:35

Development of a Prediction Simulator Software for Blast Furnace Operation

Speaker

Dr Tyamo Okosun

13:35-13:50

AI models for mechanical properties prediction and their application in product development

Speaker

Dr Sonja Straßer

13:50-14:05

Simulating the impact of complex rules' configuration on quality control in steel manufacturing

Speaker

Dr Joachim Gnauk

14:05