

Session Program

5-7 Oct 2021

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

T_4 Ladle metallurgy and steel refining

Virtual Conference

Wednesday 6 October

13:00

T_4 Ladle metallurgy and steel refining

Session | **Location:** Room 1 | **Convener:** Prof. Bernhard Peters

13:00–13:15

Melting Kinetics of Metallic Particles in a Bottom Stirred Ladle during the Tapping Operation of Liquid Steel from the Furnace to the Ladle

Speaker

Prof. Rodolfo Morales

13:20–13:35

Application of Liquid-Liquid Mass Transfer for a Steel Ladle

Speaker

Dr Marianne Doletschek

13:35–13:50

Euler-Euler Multiphase Simulation for Optimization of Bottom Tuyere Configuration in a Combined-Blowing Worn Out Converter

Speaker

Mr Vinod Dhiman

13:50–14:05

Study the effect of slag conductivity on liquid fe-c droplet decarburization kinetics

Speaker

Ms Jayasree Biswas

14:05–14:20

On the removal of a spherical Al₂O₃ inclusion at the steel-slag interface: A numerical study

Speaker

xiaomeng zhang

14:35

15:10

T_4 Ladle metallurgy and steel refining

Session | **Location:** Room 1 | **Convener:** Prof. Hans-Jürgen Odenthal

15:10–15:30

Modelling of steel-slag-inclusion reactions during refining of Si-Mn killed steel

Speaker

Mr Angshuman Podder

15:30–15:45

CFD modelling on impact of plug clogging in industrial scale steel ladles

Speaker

Dr Kumar Subramanian

Location

Room 1

15:45-16:00

Simulation based Proof-of-Concept for Plant Transformation from Integrated BOF towards Hybrid BOF/EAF Production Route

Speaker

Mr Stefan Mühlböck

Location

Room 1

16:00-16:15

Application of process simulation strategies in off line prediction models and on-line Decision Support Systems with through process approach on Feralpi sites

Speaker

Piero Frittella

Location

Room 1

16:15

Thursday 7 October

10:20

T_4 Ladle metallurgy and steel refining

Session | **Location:** Room 1 | **Convener:** Prof. Hans-Jürgen Odenthal

10:20–10:40

Model predictive control of the AOD process for material and energy optimisation

Speaker

Dr Ville-Valtteri Visuri

10:40–10:55

From Bubble-Scale to Full-Scale: Optimization of Numerical Modeling of the Ladle Furnace

Speaker

Mr Tim Haas

10:55–11:10

A fundamental investigation of decarburization reactions in the AOD converter using coupled CFD and thermodynamics databases.

Speaker

Serg Chanouian

11:10–11:25

Improving nitrogen control in AOD processes with the aid of computational fluid dynamics and thermodynamics databases.

Speaker

Björn Ahlin

11:25