

Session Program

5-7 Oct 2021

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

T_6 Continuous casting and quality control

Virtual Conference

Tuesday 5 October

15:10

T_6 Continuous casting and quality control

Session | **Location:** Room 2 | **Convener:** Prof. Pavel Ramirez Lopez

15:10–15:30

Continuous Casting Mold Flow with Gas Injection: Comparison of Physical and Mathematical Simulations

Speaker

Dr Mirko Javurek

15:30–15:45

The Physical Chemistry of Steel Deoxidation and Nozzle Clogging in Continuous Casting

Speaker

Prof. Rodolfo Morales

15:45–16:00

Modelling the Effects of Different Degrees of NMI Adhesion on Particle Deposition Behaviour in a Nozzle

Speaker

Mr Kaamil Ur Rahman Mohamed Shibly

16:00–16:15

Thin slab casting nozzle geometry design study with the aid of numerical and water modelling

Speaker

Dr Yong Tang

16:15–16:30

Large eddy simulation of continuous casting process

Speaker

Dr Katarina Mramor

16:30

Wednesday 6 October

10:20

T_6 Continuous casting and quality control

Session | **Location:** Room 2 | **Convener:** Prof. Pavel Ramirez Lopez

10:20–10:40

Modelling Asymmetric Flow in the Thin Slab Casting Mould under Electromagnetic Brake

Speaker

Dr Alexander Vakhrushev

Location

Room 2

10:40–10:55

Control of liquid metal flow in a laboratory model of a continuous caster with Electromagnetic Brake and Contactless Inductive Flow Tomography

Speaker

Mr Ivan Glavinić

Location

Room 2

10:55–11:10

Online 3D Heat Transfer and Solidification/Microstructure Models and their Capabilities for Simulation of Continuous Casting of Steel and Quality Prediction

Speaker

Dr Aleksi Laukka

Location

Room 2

11:10–11:25

Flow control in continuous slab casting by local electromagnetic braking

Speaker

Mrs Bahareh Najafian Ashrafi

Location

Room 2

11:25–11:40

Experimental study of turbulent flow in a continuous casting mold under the influence of an EMBr at various positions

Speaker

Ivan Glavinic

Location

Room 2

11:40

13:00

T_6 Continuous casting and quality control**Session** | **Location:** Room 2 | **Convener:** Dr Alexander Vakhrushev

13:00–13:20

Modelling in Continuous Casting in the frame of the VALCRA RFCS project**Speakers**

Ms Arianna Gotti, Mr Pavel Ramirez Lopez

Location

Room 2

13:20–13:35

Influence Mechanisms of Processing Parameters on Solidification Structure of Continuously Cast Steel**Speaker**

Dr Weiling Wang

Location

Room 2

13:35–13:50

Roller geometry optimization in order to minimize unsteady bulging of slab casters**Speaker**

Dr Alija Vila

Location

Room 2

13:50–14:05

Modeling Contact and Friction at the Mold-strand Gap through Lubrication and Contact Indexes**Speaker**

Dr Hyunjin Yang

Location

Room 2

14:05–14:20

Distribution of TiN precipitates in high Ti UHSS grade conventional thick slab**Speaker**

Dr Hongbin Yin

Location

Room 2

14:20

15:10

T_6 Continuous casting and quality control**Session** | **Location:** Room 2 | **Convener:** Dr Alexander Vakhrushev

15:10–15:30

A temperature, concentration, stress and grain structure slice model for continuous casting of steel**Speaker**

Prof. Božidar Šarler

15:30–15:45

Simulation of SEN clogging during continuous casting of Ti-ULC steel using a combined model

Speaker

Dr Hadi Barati

15:45–16:00

On the modelling of channel segregation: from benchmark to steel ingots

Speaker

Dr JUN LI

16:00–16:15

Using a Multiphase Model to Study the Solidification Structure and Macrosegregation in Continuous Casting Process

Speaker

Mr Rui Guan

16:15

Thursday 7 October

10:20

T_6 Continuous casting and quality control

Session | **Location:** Room 2 | **Convener:** Prof. Stefan Pirker

10:20–10:40

Modeling of the as-cast structure and macrosegregation in the continuous casting of a steel billet: Effect of M-EMS

Speaker

Prof. Menghuai Wu

10:40–10:55

Numerical Simulation of Free Grain Sedimentation in Continuously Cast Billet

Speaker

Mr SEN LUO

10:55–11:10

Temperature model for secondary metallurgical application

Speaker

Roman Rössler

11:10–11:25

An integrated approach for near process modelling of the continuous casting of steel

Speaker

Mr Gabriel Santos

11:25–11:40

Numerical Investigation of Air-Mist Spray in the Secondary Cooling during Continuous Casting of Steel

Speaker

Mr Vitalis Anisiuba

11:40

13:00

T_6 Continuous casting and quality control

Session | **Location:** Room 2 | **Convener:** Prof. Stefan Pirker

13:00–13:20

Defect monitoring tool for CC strands

Speaker

Dr Susanne Hahn

13:20–13:35

Continuous Casting Secondary Cooling: Realtime Simulation of Local Strand Temperatures

Speaker

Dr Mirko Javurek

13:35–13:50

Applicability of heat transfer and solidification simulations in investigating microstructural banding in continuously cast steel

Speaker

Dr Tuomas Alatarvas

13:50–14:05

Impact of radiative heat transfer on cooling of steel ingots during transport - a numerical analysis

Speaker

Dr Frederic Costes

14:05