

Session Program

23-25 May 2022

5th International High Manganese Steel Conference - HMNS 2022

Modelling and Simulation

voestalpine Stahlwelt
voestalpine Stahlwelt (steel world) voestalpine-Straße 4 4020 Linz Austria

Wednesday 25 May

09:35

Modelling and Simulation

Session | **Location:** Room 2 | **Convener:** Peter Presoly

09:35-10:00 **Computational alloy design of Medium-Mn steels**

Speakers

Prof. Gregory Haidemenopoulos, Mr John Aristeidakis

10:00-10:25

Ab initio based investigation of the role of retained austenite in Hydrogen embrittlement of steels

Speaker

Ali Tehranchi

10:25-10:50

Modeling of mechanical properties of metastable austenitic Cr-Mn-Ni steels with TRIP and TWIP effect

Speaker

Dr Michael Hauser

10:50

11:20

Modelling and Simulation

Session | **Location:** Room 2 | **Convener:** Gerhard Hackl

11:20-11:45

Constitutive and transformation kinetics modeling of ϵ -, α' -Martensite and mechanical twinning in Medium-Mn steels

Speaker

John S. Aristeidakis

11:45-12:10

Simulation of the TWIP/TRIP effect of high manganese steels in dependence of the applied stress condition

Speaker

Angela Quadfasel

12:10-12:35

High temperature thermodynamics of the Fe-C-Mn system; new experimental data for the Fe-C-10 and 20 wt.-% Mn system

Speaker

Peter Presoly

12:35