

Mathematical Modelling in Metallurgical Industry, 17-18 September, Scandic Kristiansand Bystranda

A meeting place for interaction between industry and academia

Programme – 17 September 2018

Time	Content, comments	Who	Company
09:00	Registration – Coffee, tea		
10:00	Welcome and General Information		Teknova (NORCE)
Improved Process Design and Operation – Industrial challenges			
10:20	Use of Mathematical Modelling in Fibre Glass Production	N.N.	3B Fibreglass
10:45	Models and Modelling Needs for the Future	Nancy Jorunn Holt	Hydro Aluminium
11:10	Model Applications in Potroom Operation	Nina Helene Omdahl	Alcoa
11:35	Mathematical Models in Elkem, Various Examples Based on Both Physics and Statistics	Edin H. Myrhaug	Elkem
12:00	Lunch		
13:00	An Overview of Different Modelling Activities in Eramet and Future Needs for Industrial Models	Mehdi Kadkhodabeigi and Benjamin Ravary	Eramet
13:25	On the Interaction between Modelling and Measurements	Eirik Manger	Hydro Aluminium
13:50	Mathematical Modelling from a Business Perspective	Håvard Moe	Elkem
14:15	Break – Coffee, tea, fruit, cakes		
Digitalization and Data Driven Modelling			
14:40	The Truth about Artificial Intelligence	Morten Godwin	UiA
15:10	Measurements and Models in Metallurgy: An Integrative Perspective	Harald Martens	NTNU Cybernetics and Idletechs AS
16:10	Machine Learning for Automatic QA – ETO Manufacturing	Ove Daae Lampe	CMR (NORCE)
16:35	Exploration of Big Data – A New Opportunity for the Metallurgical Industry	Klaus Johannsen	Uni Research Computing (NORCE)
19:00 Conference Dinner			
	Big Data - Too much Data, not Enough Information?	Harald Martens	

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08:30	START		
Mathematical Modelling for Metallurgy – Techniques, Basic Results and Case Studies			
08:30	Skin and Proximity Effects in Large 3-Phase FeSi and FeMn Furnaces	Egil V. Herland	Teknova (NORCE)
08:55	Modelling of Microstructure and Deformation During Casting and Heat Treatment of Automotive Parts at Chassis	Dag Mortensen	IFE
09:20	An Integrated Model for Temperatures, Flows and Reactions in a FeMn Furnace	Manuel Sparta	Teknova (NORCE)
09:45	Break – Coffee, tea		
10:10	European Collaboration in Industrial and Applied Mathematics	Dietmar Hömberg	Weierstrass Institute, Berlin, and Mathematical Sciences, NTNU
11:10	Modelling of Furnace Tapping	Jan Erik Olsen	SINTEF Industry
11:35	Mathematical, Computational and Process Modelling in the South African Pyrometallurgical Industry	Markus Erwee	MINTEK
12:00	Lunch		
13:00	Modelling of Current Distribution in a Submerged Furnace for Silicon Production	Yonatan Afework Tesfahunegn	Reykjavik University
13:25	Metallurgical Implications of the Current Distribution in a Silicon Furnace	Guðrún Arnbjörg Sævarsdóttir	Reykjavik University
13:50	Statistical Modelling in MG-Si Refining	Erlend Lunnan Bjørnstad	NTNU
14:15	Modelling of Dust Spreading and Capturing in a Ferroalloy Plant	Balram Panjwani	SINTEF Industry
14:40	Final Remarks/Summing Up	Sven Anton Halvorsen	Teknova
15:00	END		

Changes may occur