



International online conference

Digitalization of industrial thermal processes and units



Organizing Committee

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Agenda

Time MT	Title	Speaker
9:00	Opening statement	Vasily Verzakov Deputy Chief Executive Officer
		Dmitry Borzov PhD in Engineering Sciences, Chief Business Development Officer Magnezit Group, Russia
Section 1: Computer simulation		
09:15	Modeling the initiation of destructive cracks in refractories during thermal shock	Andrey Zabolotsky PhD in Engineering Sciences, Magnezit Group, Russia
09:40	Numerical investigation of interaction between refractory lining and molten steel	Qiang Wang PhD in Engineering Sciences, Wuhan University of Technology, China
10:05	Creep behavior for purging plug during its periodic service process: a numerical approach	Fangguan Tan PhD in Engineering Sciences, Wuhan University of Technology, China

Time MT	Title	Speaker
10:30	Simulation of the synthesis of new materials under conjugated heat exchange conditions	<p>Anna Knyazeva Professor, PhD in Physical and Mathematical Sciences</p> <p>Natalya Bukrina PhD in Physical and Mathematical Sciences</p> <p>Institute of Strength Physics and Materials Science of the Siberian Branch of the Russian Academy of Sciences, Russia</p>
11:05	Simulation of deformation and destruction of brittle porous materials of composite composition under dynamic mechanical and thermal influences	<p>Alexander Grigoryev PhD in Physical and Mathematical Sciences</p> <p>Evgeny Shilko PhD in Physical and Mathematical Sciences</p> <p>Andrey Dmitriev PhD in Physical and Mathematical Sciences</p> <p>Institute of Strength Physics and Materials Science of the Siberian Branch of the Russian Academy of Sciences, Russia</p>
Lunch break		
12:30	Methodology for assessing the dynamic strength of quasi-brittle materials	<p>Grigory Volkov PhD in Physical and Mathematical Sciences</p> <p>Yury Petrov PhD in Physical and Mathematical Sciences</p> <p>Ivan Smirnov PhD in Physical and Mathematical Sciences</p> <p>St. Petersburg State University, Russia</p>
12:55	Interpretation of hearth state in blast furnaces based on wear model calculations	<p>Henrik Saxen Professor, Doctor of Technology (Chemical Engineering)</p> <p>Mikko Helle PhD in Engineering Sciences</p> <p>Abo Akademi University, Finland</p>
13:30	Research of steel flows in the tundish of a two-stream continuous steel casting plant	<p>Marina Mikhaylova Engineer at the Modeling Department Severstal, Russia</p>
13:55	Development of steel ladle lining on the wear profile	<p>Michal Sulkowski PhD in Engineering Sciences, Arcelormittal Refractories, Poland</p>
14:20	Ceramics in metals joining and new perspectives of streamlining the welding processes	<p>Ilona Jastrzębska PhD in Engineering Sciences, AGH University of Science and Technology, Poland</p>
14:45	Flownex for modeling distributed process control systems	<p>Valery Volovikov Head of the Systems Modeling Group, CADFEM CIS, Russia</p>
15:10	Application of new possibilities of ANSYS and Rocky to model the production of refractories. Software customizing	<p>Andrey Feoktistov PhD in Engineering Sciences</p> <p>Grigory Yusupov Calculation Engineer of Mining and Mechanical Equipment</p> <p>CADFEM CIS, Russia</p>

Time MT	Title	Speaker
Section 2: Digital twin of production (Big Data)		
09:15	Implementation of Hot Adjustment software complex for rotary kilns of Magnezit Group	Andrey Borzov PhD in Engineering Sciences Magnezit Group, Russia
09:40	Application of local non-stationary metallurgy for additive manufacturing of metal and polymetal products	Kirill Kalashnikov Postgraduate, Institute of Strength Physics and Materials Science of the Siberian Branch of the Russian Academy of Sciences, Russia
10:05	Computational modelling and prediction on viscosity of slags by big data mining	Ao Huang PhD in Engineering Science, Wuhan University of Technology, China
10:40	Comprehensive approach to creation of digital twins from Sarov Engineering Center	Pavel Boriseyko Deputy Head of Sales, Engineering Analysis and Technical Support Department, Sarov Engineering Center, Russia
11:05	Virtual commissioning	Stanislav Voronin Expert on Digitalization, Siemens, Russia
Lunch break		
12:30	Digital twin of production. Practice of creation and economics of implementation	Ilya Skryabin CEO, Connective PLM, Russia
12:55	Use of network (graph) mathematical model for analysis of cause-effect relationships and probabilities of equipment breakdowns	Nikita Dolgushev PhD in Engineering Sciences, almaGRID – Digital Platforms, Russia
13:20	Big data and artificial intelligence: out of industry specifics	Yury Pakhomov Reviewer, independent IT expert, Russia
13:45	Application of artificial neural network to predict the thermal and thermomechanical behavior of refractory linings	Aidong Hou Doctor of Mining and Metallurgical Sciences, University of Leoben, Austria
14:20	Practical aspects of low-temperatures oxidation of MgO-C refractories	Sebastian Sado Postgraduate, AGH University of Science and Technology, Poland
14:45	Digital transformation at the mining enterprise. Ball mill optimization decision	Ivan Kolbin Head of Technical Experts for Automation and Electric Drive, Schneider Electric, Russia
15:10	Automated system of predictive quality management in the line of continuous production	Ilya Pugachev Head of ML Department, CADFEM CIS, Russia
15:35	Summing-up	Dmitry Borzov PhD in Engineering Sciences, Chief Business Development Officer, Magnezit Group, Russia

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