

CALL FOR ABSTRACTS

THE WORLD COMES HERE.

**TMS 2018**  
147<sup>th</sup> Annual Meeting & Exhibition



**MARCH 11 – 15, 2018**  
**PHOENIX, ARIZONA**

**SUBMIT AN ABSTRACT TO:**

## **MATERIALS PROCESSING**

### **MATERIALS PROCESSING FUNDAMENTALS**

The key interest areas to be covered in this symposium are all aspects of the fundamentals, synthesis, analysis, design, monitoring, and control of metals, materials, and metallurgical processes and phenomena.

Topics will include:

- Experimental, analytical, physical, and computer modeling of physical chemistry and thermodynamics
- Modeling on the transport phenomena in materials processing and metallurgical processes involving iron, steel, non-ferrous metals, and composites
- Second-phase particles in metals and processes, such as non-metallic inclusions and bubbles in metals (steel, aluminum, silicon, magnesium, etc.) or gas bubbles in slag or electrolyte (foaming, gas evolution or injection, etc.); the fundamentals (experimental studies or theoretical studies) on the nucleation, growth, motion and removal of these second-phase particles from the molten metal or reactors
- Physical chemistry, thermodynamics, and kinetics for the production and refining of rare earth metals
- Control of industrial processes in the field of extraction and processing of metals and materials: novel sensors for hostile-environment materials processes, such as online inclusion detection, temperature, and velocity in molten materials, surface condition of hot moving products, etc.; innovative online sampling and analysis techniques; models for real-time process control and quality monitoring systems

## **ORGANIZERS**

**Guillaume Lambotte**, Boston Electromet, USA

**Antoine Allanore**, Massachusetts Institute of Technology, USA

**Jonghyun Lee**, University of Massachusetts, USA

**Samuel Wagstaff**, Novelis, USA

**Guihua Yu**, University of Texas at Austin, USA

## **SPONSORS**

TMS Extraction & Processing Division

TMS Process Technology and Modeling Committee

**ABSTRACT DEADLINE IS JULY 1, 2017. SUBMIT ONLINE AT [www.programmaster.org/TMS2018](http://www.programmaster.org/TMS2018).**

**QUESTIONS? CONTACT [programming@tms.org](mailto:programming@tms.org)**