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**MARCH 14-18, 2021 • ORLANDO WORLD CENTER MARRIOTT  
ORLANDO, FLORIDA, USA**  
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**SUBMIT AN ABSTRACT TO:**

## **MATERIALS DESIGN**

# **AI/DATA INFORMATICS: TOOLS FOR ACCELERATED DESIGN OF HIGH-TEMPERATURE ALLOYS**

The fusion of experimental and computational data with artificial intelligence, uncertainty quantification, and theory in Materials Science and Engineering has led to an explosion of research related to the development of new alloy design approaches. While still in its infancy, materials informatics frameworks have been successfully implemented to, for example, predict fatigue life in alloys, identify novel ternary compounds, and design optimized microstructures.

The first symposium of this three-year series will focus on Tools. Broadly, Tools in this context refer to experimental, computational, theoretical, and algorithmic developments that enhance fusion between domain knowledge, data, and informatics approaches. New experimental techniques and workflows, novel computational techniques, development of and curation strategies for databases, and novel uses of predictive modeling algorithms – all related to materials informatics frameworks - will be highlighted in this symposium.

Topics of interest include prediction of mechanical and thermo-physical properties and environmental resistance at elevated temperatures under a variety of conditions (stress, oxidizing/corrosive environments, irradiation). It is expected that the second and third years will focus on case studies and gaps, respectively.

## **ORGANIZERS**

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## **SYMPOSIUM SPONSORS**

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**Abstract Deadline is July 1, 2020. Submit online at**  
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**Questions?**  
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