150th ANNUAL MEETING
TMS2021
SINCE 1871
AND EXHIBITION

SUBMIT AN ABSTRACT BY JULY 1

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

MATERIALS DESIGN

PRACTICAL TOOLS FOR INTEGRATION AND ANALYSIS IN MATERIALS ENGINEERING

As the principles outlined in the Materials Genome Initiative continue to take root in our field, computational tools applied to integration (establishing connections along the process-structure-property-performance continuum) and analysis (gaining insight about a specific element of the ICME framework though simulations or machine learning-based frameworks) in materials engineering proliferate. Although broadly beneficial, this has led to some redundancy of effort among researchers unaware that many of the practical tools they need may already exist. Practical computational tools ready to address day-to-day integration and analysis challenges are valuable to industry practitioners and an associated symposium could draw additional industry participants to the TMS Annual Meeting.

In light of this, the objectives of this symposium are to (1) serve as a forum to present new computational tools that can be readily applied to materials integration and analysis challenges in industry, academia, and government, (2) stimulate sharing the code and data associated with each presentation through an online repository (e.g. GitHub, Materials Data Facility, etc.) so that the audience and materials community can access the tools, and (3) provide a persistent link between the presentation/ProgramMaster listing, code repository, and optional IMMI publication.

Abstracts in either of the following categories are sought:

- Presentation of a computational tool developed and applied to integration or analysis of materials models, experiments, and data. Presentations in this category emphasize discussion of the underlying theory and implementation of the computational tool, limits and examples of its application, and instruction for use by the audience and broader materials community.

- Presentation of a new research result that employed a novel computational tool for integration or analysis of materials models, experiments, and data. Presentations in this category emphasize discussion of the research result along with details of the computational tool sufficient to give general instruction for use by the audience and the broader materials community.

In all cases, presenters will be required to upload the code and data associated with their presentation to a publicly accessible repository with defined expectations on data and code discoverability, ability to be cited, and longevity (to be identified by the symposium organizers and TMS). Presenters are also encouraged to submit a paper aligned with their presentation to IMMI (https://link.springer.com/journal/40192). Presenters are encouraged to consider the use of non-traditional formats in their presentations, including (for example) combining traditional slides with demonstrations or working code or notebooks as necessary.

ORGANIZERS

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SYMPOSIUM SPONSORS

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Abstract Deadline is July 1, 2020. Submit online at www.programmaster.org/TMS2021.

Questions?
Contact programming@tms.org