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# Empowering Materials Processing and Performance from Data and AI

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Deadline for manuscript submissions: closed (15 March 2021)

## **Message from the Guest Editors**

This Special Issue will address advances in materials engineering, with special emphasis on the bridging from raw materials, processing and the induced properties and performances. The present topical issue aims at addressing four key challenges using data and artificial intelligence:

(i) processing data, for enhancing existing physic-based models or creating data-driven models from scratch when the former (physics-based) models are absent or too poor for making valuable predictions;

(ii) proposing new techniques for visualizing, classifying, modeling, extracting knowledge, explaining and certifying, data and data-driven models;

(iii) enabling data to be smarter (in the same way that data allow enriching physics-based models, those models allow transforming big-data into smart-data);

(iv) inverting usual material engineering with all the just referred techniques, to discover materials and their processing for optimal properties/performances.

Original papers are solicited on all types of approaches and materials, scales and applications. Of particular interest are recent developments in the use of data and AI in the four axes mentioned before.









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## **Editor-in-Chief**

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### Message from the Editor-in-Chief

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