

Special Issue

Building the Future: Data-Infused Constitutive Modeling of Soft Material

Message from the Guest Editor

While recent advances in computational power and machine learning methods offer a novel insight into material modeling, reliable implementation of data-driven predictive models for soft materials remains a challenging task. With recent advances in characterization methods and in situ imaging techniques, extensive data are available on matrix behavior at multiple scales, which should be properly incorporated in the development of constitutive models. Interpretation of such a large database of noisy data has, so far, required a nontrivial solution, which motivates special data collection/handling techniques that are able to interpret/correlate billions of data points to achieve a clear picture of material behavior. Developing models and data processing techniques for incorporation/analysis of large datasets constitute major topics of this Special Issue. Similarly, machine learning, statistical learning, and data-driven approaches to replace or improve current continuum-based constitutive models are considered of equal importance.

Guest Editor

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Since its foundation in 2009, *Polymers* has developed into an internationally renowned, extremely successful open access journal. The editorial team and the editorial board dedicatedly combine open-access publishing and high-quality rigorous peer reviewing. The performance of the journal has proven this strategy to be well-suited and highly successful. This is reflected in the increasing impact factor of *Polymers*, the most recent one being 4.7.

I would like to invite you to contribute to the success of the journal by sending us your high quality research papers. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Alexander Böker

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