



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

Guest Editor:

**Dr. Roozbeh Dargazany**

Department of Civil &  
Environmental Engineering,  
Michigan State University, East  
Lansing, MI 48824, USA

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### 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.





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### Prof. Dr. Alexander Böker

Lehrstuhl für Polymermaterialien  
und Polymertechnologie,  
University of Potsdam, 14476  
Potsdam-Golm, Germany

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*Polymers* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
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mdpi.com/journal/polymers  
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