

## DATA-DRIVEN BIOMECHANICS SIMULATIONS

### 1700 - DATA SCIENCE AND MACHINE LEARNING

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### ABSTRACT

The development of data driven science in engineering using concepts of artificial intelligence, manifold and machine learning is breaking new ground in computational (bio)mechanics and materials science. The goal of this minisymposium is to cover some of the most outstanding applications of artificial intelligence and data-science in engineering sciences and its broad applicability to computational (bio)mechanics and materials science. It focuses on newly developed methods for data-driven approaches, and data-driven applications for anatomical structures, biomaterials, and fluids involving machine learning, uncertainty quantification, and optimization.