

Complexity, Machine Learning, and Algorithms

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Recent developments in natural sciences are challenged by increasing complexity of big data, machine learning, and algorithms. What is the state of the art? What are the foundations? What can be done? Where are possible limitations?

Innovation and research in mathematics, physics, chemistry, and biology more and more depend on complex data and applications of algorithms and computer technology. Although highly specialized, natural sciences are also growing together by common computational methods. This development of the natural sciences is embedded in a world-wide trend of digitalization of our civilization. Therefore, our meeting aims at interdisciplinary information and communication between highly specialized disciplines in the Class of Natural Sciences, and also in the European Academy of Sciences and Arts.