

The Quest for Mathematical Understanding of Deep Learning

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Abstract

Deep learning has transformed Machine Learning and Artificial Intelligence in the past decade. It raises fundamental questions for mathematics and theory of computer science, since it relies upon solving large-scale nonconvex problems via gradient descent and its variants. This talk will be an introduction to mathematical questions raised by deep learning, and some partial understanding obtained in recent years.

2012 ACM Subject Classification Theory of computation → Mathematical optimization; Computing methodologies → Artificial intelligence; Computing methodologies → Machine learning

Keywords and phrases machine learning, artificial intelligence, deep learning, gradient descent, optimization

Digital Object Identifier 10.4230/LIPIcs.FSTTCS.2020.1

Category Invited Talk



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40th IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS 2020).

Editors: Nitin Saxena and Sunil Simon; Article No. 1; pp. 1:1–1:1

Leibniz International Proceedings in Informatics



LIPICs Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl Publishing, Germany