

CEMS.UL / CMAF_cIO Distinguished Lecture Series

MATHEMATICS COLLOQUIUM of DM-Ciências ULisboa

Fall 2024 Daniel da Silva Lecture



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The AI Mathematician

Abstract:

We argue how AI can assist mathematics in three ways: theorem-proving, conjecture formulation, and language processing.

Inspired by initial experiments in geometry and string theory in 2017, we summarize how this emerging field has grown over the past years, and show how various machine-learning algorithms can help with pattern detection across disciplines ranging from algebraic geometry to representation theory, to combinatorics, and to number theory.

At the heart of the programme is the question how does AI help with theoretical discovery, and the implications for the future of mathematics.

Quarta-feira • 2 de outubro de 2024 • 16h00
FACULDADE DE CIÊNCIAS • Edifício C6 • Sala 6.2.33



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