
"Modern Mathematics" at the intersection of Machine Learning and old mathematics

Javier Gomez Serrano

Brown University

In this talk I will explain several recent and ongoing results combining machine learning techniques and more traditional mathematics. The overarching theme is the interplay between AI and classical methods in order to discover new solutions of certain mathematical problems. These problems can, but not necessarily need to, be taken from the world of analysis and PDE. Time permitting, I will also outline how to turn some of the obtained solutions into a rigorous proof via computer-assisted methods. I will discuss strategies coming from small models as well as large language models.
