PhysLean: Digitalizing physics into Lean

Tuesday 9 December 2025 09:00 (45 minutes)

This talk will discuss an open-source, community run, project called PhysLean, which aims to write physics into the interactive theorem prover Lean 4. That is, a computer programming language where mathematical correctness is guaranteed. There are numerous benefits to this endeavor including correctness, searchability of results, and the ability to interact with AI in a way safe from (certain) hallucinations.

In this talk, I will give an overview of this project, and briefly discuss its use in String theory.

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