



# Colloquium Notice

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*Mathematical and physical ideas in the foundations  
of Artificial Intelligence*

By viewing a character in a text as a particle that can occupy one of a finite collection of states (the letter "A", the letter "T", the number "7", ...) one can interpret samples of natural language as observations of a one-dimensional system of interacting particles. I'll review some of the engineering developments that led to the state-of-the-art large language models in use today and argue that the mathematical structures at work behind the scenes are consistent with this physical view and sheds a little light, not just on how LLMs work, but how human language itself might work.

Monday

**October 21, 2024**

Starts at 12:15 PM

Coffee at 12:00 PM

Physics Conference Room, SB B326

This talk is accessible via [Zoom](#) or use

**meeting ID 829 2687 2594** and **passcode 866995** to join