

Emergence of Large Language Model and Application in Scientific Discoveries

Monday, July 17, 2023 2:00 PM (50 minutes)

ChatGPT demonstrates extraordinary emergent abilities in complex reasoning and language generation. In this talk we introduce Big Bang Transformer[乾元], a pretrained LLM trained on blend of general text, scientific papers and code datasets. We discuss how LLMs acquire emergent abilities by instruct finetuning and RLHF. We propose to use statistical mechanics principles to study the fundamental mechanism of the emergence of intelligence in large parameter language models. Also, we discuss the potential application of large language model in scientific data analysis and discoveries, particularly in the field of experimental particle physics.

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