

AITP'24 PANEL

Panelists: Joao Araujo, Mario Carneiro, Nil Geisweiller, Zar Goertzel, Georges Gonthier, Jan Hula, Andras Kornai, Paul-Andre Mellies, Stephan Schulz,

General topics: Embeddings vs proof search vs program/proof synthesis vs (AI)TP/AGI architectures.

A. Andras (who recently published a book on vector embeddings) and Paul-Andre will start by giving short talks about embeddings (relates also to Jan's and Andras's talks on embeddings).

B. Then we'll move into the panel with all panelists and (roughly) the following topics

1. (Andras, Paul-Andre, Jan): What are vector embeddings, how do they capture natural language and thinking/reasoning? Are there any "right" embeddings for math, reasoning, proof, etc?
2. All?: How does (ATP/other) search and synthesis of programs relate to the embeddings?
3. Nil/all: Can we use reasoning to discover heuristics/programs (learn) - Nil's examples.
4. Nil, Thibault, all: Where are these components (embeddings/DL/LM, reasoning to learn, program synthesis, formal verification) wrt AGI architectures and ideas such as AIXI, Solomonoff induction and Godel machine? Where are they wrt to (AI)TP architectures?
5. All/Zar?: Does this have any implications for the (AI)TP/AGI architectures we are building? What architectures should we be building?