

Mathematical Biology Seminar

Wednesday, February 10, 2021
Speaker: Tai-Danae Bradley, X



Title: A Mathematical Perspective on Language

Time: 9am

Zoom Link:

<https://ucmerced.zoom.us/j/98050375649>

Passcode: 172069

Abstract:

From a mathematical perspective, natural language exhibits rich structure. It is both algebraic and statistical, in the basic sense that words concatenate to form longer expressions, and the frequencies of those expressions contribute to their meaning. Similar mathematical structure is found in quantum many body systems, which prompts the use of basic tools from quantum probability theory to investigate this structure in language. In recent work, my colleague and I show that these ideas find a nice home in category theory, a modern branch of pure mathematics. I'll share a high-level overview of these ideas, working from the ground up.

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