

Mathematics & Statistics Department

2021-2022 Colloquium Series

Dr. Brandon Hanson

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Title: Sums and products and combinatorial geometry (oh my!)

Abstract: One of the fundamental themes in number theory is the incompatibility of addition and multiplication. As he did so often, Paul Erdos made a wonderfully simple conjecture which beautifully describes this incompatibility, called the Sum-Product Conjecture. Along with Endre Szemerédi, he proved a first estimate toward the conjecture in 1983. In 1997, Gyorgy Elekes introduced ideas from combinatorial geometry that made short work of the best known estimates for the Sum-Product Conjecture and since then two areas have been intimately connected. I plan on introducing the combinatorial background, surveying the bridges between the two areas, and highlighting some recent developments. The talk should be both leisurely and accessible.

Hill Auditorium
Barrows Hall
University of Maine

Wednesday
September 22,
2021
Refreshments will be served

3:15pm-4:30pm