

Sunflowers, thresholds, and VC-dimension

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16 November 2025

VC-dimension is a measure of complexity for set systems that originated in learning theory and (independently) model theory. In extremal combinatorics, VC-dimension can often be used to obtain stronger results and improved bounds. In this talk, I will discuss applications of VC-dimension to two closely related combinatorial problems: the sunflower lemma and the Kahn—Kalai conjecture. Based on joint work with József Balogh, Michelle Delcourt, Asaf Ferber, and Huy Tuan Pham.