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Jerrold R. Griggs* (griggs@math.sc.edu), Department of Mathematics, University of South Carolina, Columbia, SC 29208. *Large families of subsets avoiding a given configuration.* Preliminary report.

Translating Turán-type questions to ordered sets, we are interested in the maximum size $L_a(n, H)$ of a family \mathcal{F} of subsets of the set $\{1, 2, \dots, n\}$, subject to the condition that a certain configuration (subposet H) is excluded. For instance, Sperner's Theorem solves the problem for H being a two-element chain. We survey results of this kind, including bounds when H is the four-element N poset (joint with Gyula O.H. Katona) or a more general height two poset (joint with Linyuan Lincoln Lu). (Received September 17, 2007)