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Title: "W-Graphs"

Abstract: Representations of the symmetric group S_n are easy to parametrize but difficult to understand in detail. "W-graphs" were introduced by David Kazhdan and George Lusztig in a 1979 paper. They're a fairly simple combinatorial structure that describes very explicitly a representation of a Coxeter group (such as the symmetric group). I'll explain the definition, some of what it's good for (including infinite-dimensional representation theory of reductive groups) and some recent extensions of it.