

## Simplicial Complexes from Graphs

Margaret Bayer, University of Kansas

Over the last thirty years, there has been various work on simplicial complexes defined from graphs, much from a topological viewpoint. In this talk I will present recent work (with many collaborators) on the topology of two families of simplicial complexes. One is the matching complex, the complex whose faces are sets of edges that form a matching in a graph, with new results on outerplanar graphs and on planar graphs coming from certain tilings. The other is the cut complex, where the facets are sets of vertices whose complements induce disconnected graphs.

