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In this talk we will highlight the appearances of Forman's Discrete Morse Theory in the context of Hom complexes.

This family of complexes was introduced by Lovasz and is a modern tool for providing topological obstructions to graph colorings, as for example is signified by the Lovasz Conjecture, which was proved recently.

Parts of this talk will concern joint work with E. Babson and S. Cukic. (Received February 22, 2005)