1125-05-1996 **Benjamin J. Braun** and **Wesley K. Hough*** (`wesley.hough@uky.edu`), Department of Mathematics, University of Kentucky, 715 Patterson Office Tower, Lexington, KY 40506. *Matching and Independence Complexes Related to Small Grids.*

In this talk, we briefly survey tools from discrete Morse theory useful for analyzing the independence complex of graphs. More specifically, we develop particular matching tree algorithms applied to certain grid graphs that obey cell-counting recursions connecting back to interesting combinatorial sequences. (Received September 19, 2016)