

1154-52-1854 **Michael P Hitchman*** (mhitchm@linfield.edu). *On student-centered tiling research.*

This talk provides a brief introduction to techniques developed to address tiling questions in the integer lattice, with an emphasis on finding tile invariants, linear combinations among the number of copies of each tile that must persist in any tiling of a region. We also discuss some possible tiling projects for those interested in getting started in this area of research. A tiler's toolbox for finding tile invariants draws on content from combinatorics, number theory, group theory, and topology. Given their hands-on nature and their relevance to the undergraduate curriculum, tiling questions continue to be a lively subject for student-centered research. (Received September 16, 2019)