

1145-13-1622 **Corey Brooke*** (cbrooke@uoregon.edu), Department of Mathematics, 202 Fenton Hall,
University of Oregon, Eugene, OR 97403-1222. *Associated Primes of h-Wheels and Other Graphs.*

In this talk, I will present the main result of the 2016 Fairfield REU in algebra: a family of graphs whose cover ideals have high indices of stability, called h-wheels. Necessarily, I will need to approach this result from both purely algebraic and relatively combinatorial perspectives, but the most satisfying insights will marry the two, exposing how changing a graph affects the algebraic properties of its cover ideal. Along the way, I will share my experiences as an REU student terrified of graph theory and will offer some ideas for future research. (Received September 23, 2018)