

1116-05-741 **N Bradley Fox*** (foxb@apsu.edu). *A Lattice Path Interpretation of the Diamond Product.*

The diamond product is a poset operation that corresponds to the Cartesian product of polytopes. Through the use of coproducts, recursive formulas have been developed to study the resulting cd -index, a polynomial which contains data on chains within posets, of the diamond product of two Eulerian posets. This talk introduces a combinatorial interpretation for the diamond product of two cd -monomials that involves a weighted sum of lattice paths. (Received September 11, 2015)