

1096-13-1935 **Bernadette Boyle*** (boyleb7@sacredheart.edu), Sacred Heart University, 5151 Park Ave,
Fairfield, CT 06825. *The Unimodality of Pure O-Sequences of Type Three in Three Variables.*

Since the 1970's, great interest has been taken in the study of pure O-sequences, which are in bijective correspondence to the Hilbert functions of Artinian level monomial algebras. Much progress has been made in classifying these by their shape. It has been shown that all monomial complete intersections, Artinian algebras in two variables and Artinian level monomial algebras with type two in both three and four variables have unimodal Hilbert functions. In this talk, we will show that Artinian level monomial algebras of type three in three variables have unimodal Hilbert functions. (Received September 17, 2013)