Bernadette Boyle* (boyleb7@sacredheart.edu), Sacred Heart University, 5151 Park Ave, Fairfield, CT 06825. The Index of a Family of Gorenstein Numerical Semigroups in Four Generators. Preliminary report.

In 2013, O. Veliche developed a closed formula to find the index of a complete intersection numerical semigroup ring with three generators. She also found methods to compute the index of these rings with more than three generators; however, to use these methods one must first find other values, such as the Frobenius number and the order of elements. In this talk, we will discuss expanding Veliche’s results to develop an explicit formula for the index of a family of Gornstein numerical semigroup rings in four generators which only requires knowledge of the generators of the ring. (Received September 20, 2016)