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*Gorenstein rings with Extremal Betti numbers.* Preliminary report.

Recall that a sequence of natural numbers  $(h_0, \dots, h_s)$  is called a SI-sequence (for Stanley-Iarrobino) if it is symmetric and its first half is a differentiable  $O$ -sequence. Such sequences correspond exactly with the possible Hilbert functions of graded Artinian Gorenstein algebras with the weak Lefschetz property. In their important 2002 paper on Gorenstein schemes, Migliore and Nagel use generalized stick figures to construct an Artinian Gorenstein algebra which has maximal graded Betti numbers among all Artinian Gorenstein algebras with the weak Lefschetz property and Hilbert function equal to a given SI-sequence. In this preliminary report, we describe a different inductive construction of these algebras. (Received February 15, 2016)