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Adam Boocher* (boocher@math.utah.edu), **Alessio D'Alí**, **Eloísa Grifo**, **Jonathan Montaña** and **Alessio Sammartano**. *Deviations of Graded Algebras*.

The deviations of a graded algebra are a sequence of integers that determine the Poincaré series of its residue field and arise as the number of generators of certain DG algebras. In a sense, deviations measure how far the ring is from being a complete intersection. We study extremal deviations among those of algebras with a fixed Hilbert series. We prove that, like the Betti numbers, deviations do not decrease when passing to initial and lex-segment ideals. We also prove that deviations grow exponentially for Golod rings and for algebras presented by certain edge ideals. Combinatorial considerations, including some open questions will be discussed. (Received August 12, 2015)