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David A. Jorgensen*, Department of Mathematics, University of Texas at Arlington, Arlington, TX 76019, and **Graham J. Leuschke**. *On the growth of the Bass series of a Cohen-Macaulay local ring*. Preliminary report.

We study the growth of the Bass series of a commutative Cohen-Macaulay local ring. We show that the growth is in general not extremal, and discuss several cases in which it is exponential. It is an open question whether the Bass series of the ring grows exponentially whenever the ring is not Gorenstein. (Received August 15, 2005)