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D. Katz* (dlk@math.ku.edu), Department of Mathematics, University of Kansas, Lawrence, KS 66045, and **J. Validashti**, Department of Mathematics, University of Kansas, Lawrence, KS 66045. *Multiplicities and Rees valuations.*

Let (R, \mathfrak{m}) be a local ring and $I \subseteq R$ be an ideal with maximal analytic spread. We show that the j -multiplicity of I is determined by the Rees valuations of I that are \mathfrak{m} -valuations. We also discuss a multiplicity that is the limsup of a sequence of lengths that grow at an $O(n^d)$ rate. (Received February 09, 2010)