

1059-13-191

**Ian M. Aberbach\*** (aberbachi@missouri.edu), Department of Mathematics, University of Missouri, Columbia, MO 65211, and **Aline Hosry**. *Coefficient and cancellation theorems of Briançon-Skoda type*. Preliminary report.

Let  $(R, m)$  be a Noetherian local ring,  $I \subseteq R$  an ideal, and  $J \subseteq I$  a reduction of  $I$ . Let  $\ell = \ell(I)$  be the analytic spread of  $I$ . When  $R$  is sufficiently nice (e.g., regular or F-rational), then the Briançon-Skoda Theorem says that  $I^\ell \subseteq J$ . Previous work by various authors has shown that under certain hypotheses, one can often get more information on the coefficients of the elements in  $J$ , or lower the exponent on  $I$  in order to be contained in  $J$ . We will examine these results and show that some of the earlier hypotheses can be made less restrictive. (Received February 23, 2010)