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Kazuho Ozeki* (ozeki@yamaguchi-u.ac.jp), 1677-1 Yoshida, Yamaguchi City, Yamaguchi
753-8512, Japan. *The structure of Sally modules and the second normal Hilbert coefficient.*

The Hilbert coefficients of a primary ideal in a Noetherian local ring are important numerical invariants associated to an ideal. The notion of the Sally module was introduced by W. V. Vasconcelos that is an important tool to interplay between Hilbert coefficients and the structure of the associated graded ring of ideals. In this talk let us introduce some structure theorems of Sally modules. We apply these results to give a complete structure theorem of the Sally module in the case the second normal Hilbert coefficient attains almost minimal value in an analytically unramified Cohen-Macaulay local ring. This talk is based on a joint work with S. K. Masuti, M. E. Rossi, and H. L. Truong. (Received January 26, 2019)