1011-13-261 **Meral Arnavut*** (Meral.Arnavut@fredonia.edu), SUNY Fredonia, Department of Mathematical Sciences, 209 Fenton Hall, Fredonia, NY 14063, and **Melissa Luckas** and **Sylvia Wiegand**. *Decomposition of modules over one-dimensional Noetherian rings.*

In this study we consider finitely generated torsion-free modules over certain one-dimensional commutative Noetherian rings R. A ring R is said to have *bounded representation type* if there exists a positive integer N so that, for every indecomposable R-module M and every minimal prime ideal P of R, the dimension of M localized at P, as a vector space over the field of R localized at P, is less than or equal to N. In 1988, Sylvia Wiegand showed that, if locally every torsion-free module is a direct sum of ideals, that is, locally $N = 1$, if $n >= 3$ is an integer, and if M is a torsion-free R-module such that the vector space dimensions are between n and $2n - 2$, then M decomposes. In this study we find similar upper and lower bounds for the spread of the sets of vector space dimensions for indecomposable modules for every ring-order of bounded representation type without the local $N = 1$ condition. We show that if $n >= 8$ an integer and M is an R-module such that the vector space dimensions of M_P are between n and $2n-8$, then M decomposes non-trivially. This result requires a mild equicharacteristic assumption on R; we also discuss bounds in the non-equicharacteristic case. (Received August 30, 2005)