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Connor O'Dell* (connorodell@my.unt.edu). *Non-resonant uniserial representations of $\text{Vec}(\mathbb{R})$.*

The non-resonant bounded uniserial representations of $\text{Vec}(\mathbb{R})$ form a certain class of infinite dimensional representations, all of whose subquotients are indecomposable. Feigin and Fuks classified all bounded indecomposable extensions of length two, and Conley completed a similar classification in length three. We classify all non-resonant bounded uniserial extensions of $\text{Vec}(\mathbb{R})$ up to length 6. Beyond this length, all such extensions appear to arise as subquotients of extensions of arbitrary length. Some examples may be explained by the pseudodifferential operator cocycle discovered by Khesin and Kravchenko. (Received September 20, 2017)