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**John Lesieutre\*** (jd1@psu.edu). *More pathologies of the volume function.* Preliminary report.

Suppose that  $X$  is a smooth projective variety,  $D$  is a divisor on  $X$ , and  $A$  is an ample divisor. The growth rate of  $h^0(X, mD + A)$  as  $m$  increases plays an important role in birational geometry, where it is related to invariants called “numerical dimension”. I will explain an example in which this growth is badly-behaved in ways previously thought impossible. The construction makes use of dynamical ideas and takes place on a Calabi–Yau threefold for which the Kawamata–Morrison cone conjecture can be checked very explicitly. (Received January 13, 2021)