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Jason Bell, Dragos Ghioca and **Thomas Tucker*** (tjtucker@gmail.com), Department of Mathematics, University of Rochester, Rochester, NY 14627. *Uniform boundedness for positive dimensional varieties.*

Let X be a variety over a number field K and let $f : X \rightarrow X$ be a morphism. Morton, Silverman, Zieve, Pezda, Hutz and others have proved that there are bounds on the number of f -periodic points in $X(K)$ that depend only on X , K , and the size of the residue field for a prime of good reduction for f . If one looks more generally at periodic subvarieties of arbitrary dimension, the situation becomes quite different. We present some partial results, joint with Bell and Ghioca, and present some simple questions that we cannot yet answer. (Received September 19, 2015)