Dragos Ghioca*, Department of Mathematics & Computer Science, University of Lethbridge, 4401 University Drive, Lethbridge, Alberta T1K 3M4, Canada. The dynamical Manin-Mumford problem.

We discuss Zhang's dynamical Manin-Mumford conjecture. We present a family of counterexamples, and then we propose a reformulation of the conjecture which takes into account our family of counterexamples. Then we prove our reformulation for endomorphisms of abelian varieties, and for split endomorphisms of $\mathbb{P}^1 \times \mathbb{P}^1$. This work is joint with Thomas J. Tucker. (Received August 26, 2009)