1125-60-1511   **Michael Damron**, **Jack Hanson** and **Wai-Kit Lam*** (`lamw@indiana.edu`). *The size of the boundary in the Eden model.*

The Eden model, a special case of first-passage percolation, is a stochastic growth model in which an infection that initially occupies the origin of $\mathbb{Z}^d$ spreads to neighboring sites at rate 1. Infected sites are colonized permanently; that is, an infected site never heals. It is known that at time t, the infection occupies a set $B(t)$ of vertices with volume of order t^d, and the rescaled set $B(t)/t$ converges to a convex, compact limiting shape. In joint work with M. Damron and J. Hanson, we partially answer a question of K. Burdzy, concerning the order of the size of the boundary of $B(t)$. We show that, in various senses, the boundary is relatively smooth, being typically of order t^{d-1}. This is in contrast to the fractal behavior of interfaces characteristic of percolation models. (Received September 17, 2016)