1059-51-229 **Alexandra R Pettet*** (apettet@umich.edu), Department of Mathematics, University of Michigan, East Hall, Ann Arbor, MI 48109, and **James W Anderson** and **Hugo Parlier**. *Small filling sets of curves on a surface.*

We determine the asymptotic growth rate of the smallest size of a filling set of simple closed curves which pairwise intersect at most once on a closed surface of genus g. We then show that this is strictly smaller than the growth rate of a smallest filling set of systoles. This demonstrates that the topological condition that a set of curves pairwise intersect at most once is quite different from the geometric condition that a set of curves can arise as systoles. (Received February 23, 2010)