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**Jeff A Rosoff\*** ([jr@gac.edu](mailto:jr@gac.edu)), Dept. of Mathematics and Computer Science, Gustavus Adolphus College, St. Peter, MN 56082. *The Monoid of Effective Divisor Classes on an Algebraic Surface.*

The Neron-Severi group  $NS(X)$  of divisor classes modulo algebraic equivalence on an algebraic surface  $X$  is often not difficult to calculate; it is always finitely generated and its rank is an important invariant of  $X$ . Contained in this group is the monoid  $M(X)$  consisting of those classes represented by an effective divisor;  $M(X)$  is harder to calculate than  $NS(X)$  and need not be finitely generated.

In this talk we will examine cases in which  $M(X)$  is finitely generated, and cases in which finite generation fails. We will see that the techniques of determining this depend heavily on the surface type of  $X$ . In the case of finite generation we will illustrate minimal generating sets of effective divisor classes. (Received September 22, 2012)