1102-57-17   **Andrew Wilfong*** (`awilfon2@emich.edu`), Department of Mathematics, Eastern Michigan University, Ypsilanti, MI 48197. *Smooth Projective Toric Generators of Complex Cobordism.*

In 1960, Milnor and Novikov demonstrated that the complex cobordism ring is a polynomial ring with a generator in each even dimension. Since that time, convenient choices for these generators have been difficult to find. After an introduction to complex cobordism, we will explore the role that toric varieties play in this polynomial ring structure. More specifically, certain torus-equivariant blow-ups will be used to construct smooth projective toric variety polynomial generators in every complex dimension that is odd or that is one less than a prime power. A large amount of evidence suggests that smooth projective toric variety generators can be constructed for the remaining dimensions as well. These results demonstrate that convenient choices for complex cobordism generators can likely be found among smooth projective toric varieties. (Received June 05, 2014)