1139-14-590   **Javier Gonzalez-Anaya** (`jga@math.ubc.ca`), **Jose Gonzalez*** (`jose.gonzalez@ucr.edu`) and **Kalle Karu** (`karu@math.ubc.ca`). *On the Cox rings of some blown up toric surfaces.*

We present combinatorial sufficient conditions for the finite and non-finite generation of the Cox ring of the blowup at a general point of a toric surface of Picard number one. This generalizes work of Goto-Nishida-Watanabe, Kurano-Nishida and Srinivasan. We also discuss generalizations to higher dimensions and to toric surfaces with Picard number two. This problem has applications to deciding the noetherianity of symbolic algebras and has also been applied to decide other instances of non-finite generation of Cox rings. This talk is based on joint work with Javier Gonzalez-Anaya and Kalle Karu. (Received February 20, 2018)