1112-11-436 **Peter Sarnak*** (sarnak@math.princeton.edu), Department of Mathematics, Princeton University, Princeton, NJ 08544. *Markoff Surfaces, Numbers and Strong Approximation*.

Abstract: Markoff numbers are the coordinates of the integer solutions to Markoff's equation in affine 3-space, and they arise in many different contexts. We review some of these and then discuss the congruence properties (strong approximation) of integral points on such affine surfaces. Among the techniques developed for this analysis are ones connected to the classification of algebraic Painlave VI equations. (Received August 10, 2015)