1056-Z1-689 **Shanzhen Gao*** (`sgao2@fau.edu`), Department of Mathematics Sciences, Florida Atlantic University, 777 Galdes Road, Boca Raton, FL 33431. *Some Results, Problems and Conjectures On Generalized Markoff Numbers.*

A Markoff number (named after Andrei A. Markoff) is a number that appears in a positive integer solution to the equation $a^2 + b^2 + c^2 = 3abc$ (known as the Markoff equation). The (generalized) Markoff Numbers has been the subject of considerable study. We will present some new results, problems and conjectures on the generalized Markoff Numbers. (Received September 15, 2009)