

**On the Unicity Conjecture for Markoff Numbers**, *Canad. Math. Bull.*, **39** (1), 3 – 9 (1996).

**Abstract:** Frobenius ('13) conjectured that for any positive integer  $m$ , there exists at most one pair of integers  $(x, y)$  with  $0 \leq x \leq y \leq m$  such that  $(x, y, m)$  is a solution to the Markoff equation:  $x^2 + y^2 + m^2 = 3xym$ . We show this is true if either  $m$ ,  $3m - 2$  or  $3m + 2$  is prime, twice a prime or four times a prime.

© 1996 Canadian Mathematical Society

**Remark:** This result can be extended to include  $m$  a power of a prime or twice a power of a prime, and  $3m - 2$  or  $3m + 2$  an odd power of a prime or 4 times an odd power of a prime.

-Arthur Baragar, January 24th, 2003.