Bilkent University
Department of Mathematics

PROBLEM OF THE MONTH

Term: November 2011

Find the maximal possible value of the real number A such that for all positive real numbers x, y, z satisfying $xyz = 1$ we have

$$\left(\frac{x}{1+x}\right)^2 + \left(\frac{y}{1+y}\right)^2 + \left(\frac{z}{1+z}\right)^2 \geq A.$$