Bilkent University
Department of Mathematics

Problem Of The Month

Term: July-August 2014

Let a, b, c be nonnegative real numbers satisfying $a^2 + b^2 + c^2 = 1$. Prove that

$$\sqrt{a+b} + \sqrt{b+c} + \sqrt{c+a} \geq \sqrt{7(a+b+c) - 3}$$