



Bilkent University  
Department of Mathematics

## PROBLEM OF THE MONTH

**Term:** July-August 2013

Find all prime triples  $(p, q, r)$  such that  $3 \nmid p+q+r$  and both  $p+q+r$ ,  $pq+qr+rp+3$  are perfect squares. Is there any prime triple  $(p, q, r)$  such that  $3 \mid p+q+r$  and both  $p+q+r$ ,  $pq+qr+rp+3$  are perfect squares.