## University of Colorado Department of Mathematics

## Problem of the Month October 2011

Let P be the orthocenter of the acute angled triangle XYZ, and let  $X_1$ ,  $Y_1$  and  $Z_1$  be the respective circumcenters of triangles YZP, ZXP and XYP. Prove that the lines  $XX_1$ ,  $YY_1$  and  $ZZ_1$  are concurrent.

