

PRIME PAUCITY FOR SUMS OF TWO SQUARES

VALENTIN BLOMER AND JÖRG BRÜDERN

ABSTRACT. Almost all solutions of the diophantine equation $x_1^2 + x_2^2 = x_3^2 + x_4^2 = x_5^2 + x_6^2$, with all x_j prime numbers, are diagonal ones. This is established here in a quantitative form.