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Title: On the Diophantine equation $x^4 - q^4 = py^r$

Author(s): Aurélien Bajolet , Benjamin Dupuy , Florian Luca and Alain Togbé

In this paper, we characterize up to finitely many exceptions all the solutions of the Diophantine equation $x^4 - q^4 = py^r$ with $r > 3$ a fixed prime. When $r = 5$, we show that there are no exceptions.

Address:
Aurélien Bajolet
Université de Bordeaux 1
Institut de Mathématiques
351 cours de la Libération
33404 Talence
France
E-mail: Aurelien.Bajolet@math.u-bordeaux1.fr

Address:
Benjamin Dupuy
Université de Bordeaux 1
Institut de Mathématiques
351 cours de la Libération
33404 Talence
France
E-mail: Benjamin.Dupuy@math.u-bordeaux1.fr

Address:
Florian Luca
Centro de Ciencias
Matemáticas
Universidad Nacional
Autónoma de México
C.P. 58089, Morelia
Michoacán
México
E-mail: fluca@matmor.unam.mx

Address:
Alain Togbé
Mathematics Department
Purdue University
North Central
1401 S, U.S. 421
Westville IN 46391
USA
E-mail: atogbe@pnc.edu