

# A Diophantine problem with prime variables

Alessandro Languasco, Alessandro Zaccagnini

(Submitted on 1 Jun 2012)

We study the distribution of the values of the form  $\lambda_1 p_1 + \lambda_2 p_2 + \lambda_3 p_3^k$ , where  $\lambda_1$ ,  $\lambda_2$  and  $\lambda_3$  are non-zero real number not all of the same sign, with  $\lambda_1 / \lambda_2$  irrational, and  $p_1$ ,  $p_2$  and  $p_3$  are prime numbers. We prove that, when  $1 < k < 4/3$ , these value approximate rather closely any prescribed real number.

Comments: submitted

Subjects: **Number Theory (math.NT)**

Cite as: **arXiv:1206.0252 [math.NT]**

(or **arXiv:1206.0252v1 [math.NT]** for this version)

## Submission history

From: Alessandro Languasco [[view email](#)]

[v1] Fri, 1 Jun 2012 17:14:55 GMT (11kb)

*[Which authors of this paper are endorsers?](#)*

Link back to: [arXiv](#), [form interface](#), [contact](#).

## Download:

- [PDF](#)
- [PostScript](#)
- [Other formats](#)

## Current browse context:

math.NT

[< prev](#) | [next >](#)

[new](#) | [recent](#) | [1206](#)

## Change to browse by:

[math](#)

## References & Citations

- [NASA ADS](#)

## Bookmark (what is this?)

