

**Abstract of paper [1].**

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 numbers 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.

**References**

- [1] A. Languasco and A. Zaccagnini. A Diophantine problem with prime variables. In V. Kumar Murty, D. S. Ramana, and R. Thangadurai, editors, *Proceedings of the “International Meeting in Number Theory,” celebrating the 60th birthday of Prof. R. Balasubramanian, Harish-Chandra Research Institute, Allahabad, Dec. 2011*, volume 23 of *Ramanujan Mathematical Society–Lecture Notes Series*, pages 157—168, 2016. Arxiv preprint 1206.0252.