

**On an equation involving fractional powers with one prime and
one almost prime variables**

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This is a joint work with D. I. Tolev. In [1] we consider the equation $[p^c] + [m^c] = N$, where $[t]$ denotes the integer part of t , and prove the following

Theorem.— *Suppose that $1 < c < \frac{29}{28}$. Then every sufficiently large integer N can be represented as $[p^c] + [m^c] = N$, where p is a prime and m is an almost prime with at most $\left[\frac{52}{29-28c}\right] + 1$ prime factors.*

[1] Zh. H. Petrov, D. I. Tolev, *On an equation involving fractional powers with one prime and one almost prime variables*, Proceedings of the Steklov Institute of Mathematics 296, Suppl. 2, 2017.

<https://arxiv.org/pdf/1604.03885.pdf>