Title: On binomial Thue equations and ternary equations with $S$-unit coefficients
Author(s): András Bazsó
In this paper we obtain some new results for a collection of equations of the form (2) $A x^{n}-B y^{n}= \pm 1$ resp. (3) $A x^{n}-B y^{n}=z^{m}$ with $m \in\{3, n\}$, where $x, y, z, A, B, n$ are unknown nonzero integers such that $n \geq 3$ is a prime and $A B$ is composed of two fixed primes. We prove among other things that under certain conditions formulated in Section 2, equations (3) have no solutions with $|x y|>1, A x, B y$ and $z$ coprime and $n>13$ (cf. Theorems 2 to 4 ). Combining this with some other results and techniques, we establish a similar result for equations (2) (cf. Theorem 1).

## Address:

András Bazsó
Institute of Mathematics
Number Theory Research Group of the
Hungarian Academy of Sciences
University of Debrecen
H-4010 Debrecen, P.O. Box 12
Hungary

