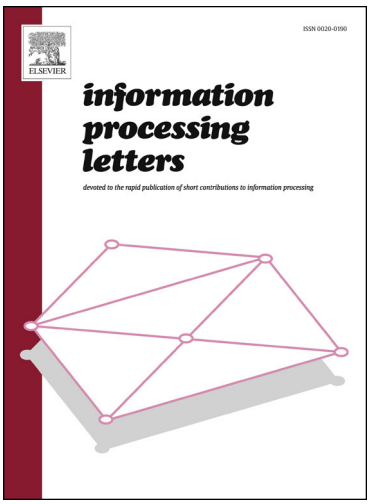
Accepted Manuscript



Birthday type attacks to the Naccache-Stern Knapsack cryptosystem

M. Anastasiadis, N. Chatzis, K.A. Draziotis

PII: S0020-0190(18)30127-3
DOI: https://doi.org/10.1016/j.ipl.2018.06.002
Reference: IPL 5704

To appear in: *Information Processing Letters*

Received date: 22 November 2017
Revised date: 3 June 2018
Accepted date: 3 June 2018

Please cite this article in press as: M. Anastasiadis et al., Birthday type attacks to the Naccache-Stern Knapsack cryptosystem, *Inf. Process. Lett.* (2018), https://doi.org/10.1016/j.ipl.2018.06.002

Highlights

- We present an attack to Naccache-Stern knapsack cryptosystem.
- The attack is probabilistic and relies on the birthday paradox.
- Is practical on messages of small or large Hamming weights.
- Performance of time complexity, space complexity and success probability of the attack.