

The Recover Problem. [\[COMMENT\]](#) Consider other name.

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Abstract

We answer what is the complexity of recovering a system after absorbing a significant damage. Formally we show that if it is guaranteed that an amlicus/virus program took the control on at most $\Theta(n)$ ([\[COMMENT\]](#) $\frac{1}{4}n$ parties) than one can recover the system at a cost linear in the damage that was made by the malicious.

1 Introduction.

Consider the case that an organization detects a malicious program in its net, knowing that the virus touched at most a quarter of the computers. It needs to take a decision whether it is going to reformat the system or paying the cost of recovering the damage. Even though the problem might sound artificial, it actually models situations in which the damage that was made for the companies is not well understood. In this work we suggest a simple solution for that problem and also review how efficiently one can use other constructions from the error correction field.