

# Accepted Manuscript

The P3 infection time is W[1]-hard parameterized by the treewidth

Thiago Marcilon, Rudini Sampaio

PII: S0020-0190(17)30220-X  
DOI: <https://doi.org/10.1016/j.ipl.2017.12.006>  
Reference: IPL 5617

To appear in: *Information Processing Letters*

Received date: 10 August 2017  
Revised date: 22 December 2017  
Accepted date: 22 December 2017

Please cite this article in press as: T. Marcilon, R. Sampaio, The P3 infection time is W[1]-hard parameterized by the treewidth, *Inf. Process. Lett.* (2017), <https://doi.org/10.1016/j.ipl.2017.12.006>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



## Highlights

- P3 infection time is the maximum number of rounds needed to infect all vertices of a graph according to the following deterministic rule: an infected vertex remains infected forever and in consecutive rounds healthy vertices with at least 2 already infected neighbors becomes infected.
- P3 infection time problem is W[1]-hard on the treewidth of the graph.
- P3 infection time problem is fixed parameter tractable on the treewidth, if the time is fixed.

Download English Version:

<https://daneshyari.com/en/article/6874230>

Download Persian Version:

<https://daneshyari.com/article/6874230>

[Daneshyari.com](https://daneshyari.com)