Resource Summary Report

Generated by <u>dkNET</u> on May 19, 2025

PESTO

RRID:SCR_016891 Type: Tool

Proper Citation

PESTO (RRID:SCR_016891)

Resource Information

URL: https://github.com/ICB-DCM/PESTO

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Description: Software customizable toolbox for parameter estimation in MathWorks MATLAB. Offers scalable algorithms for optimization, uncertainty and identifiability analysis which do not depend on any problem-specific assumptions.

Abbreviations: PESTO

Synonyms: Parameter EStimation TOolbox, PESTO

Resource Type: software application, software toolkit, data analysis software, data processing software, software resource

Defining Citation: PMID:29069312

Keywords: parameter, estimation, MATLAB, algorithm, optimization, uncertainty, identifiability, analysis

Funding: European Union's Horizon ; German Federal Ministry of Education and Research ; German Research Foundation via the Graduate School of Quantitative Biosciences Munich

Availability: Free, Available for download, Freely available

Resource Name: PESTO

Resource ID: SCR_016891

Alternate URLs: https://zenodo.org/record/579890#.XDZvSlxKiM9

License: BSD license

Record Creation Time: 20220129T080332+0000

Record Last Update: 20250517T060307+0000

Ratings and Alerts

No rating or validation information has been found for PESTO.

No alerts have been found for PESTO.

Data and Source Information

Source: <u>SciCrunch Registry</u>

Usage and Citation Metrics

We found 10 mentions in open access literature.

Listed below are recent publications. The full list is available at <u>dkNET</u>.

Schulz M, et al. (2024) Mathematical multi-compartment modeling of chronic lymphocytic leukemia cell kinetics under ibrutinib. iScience, 27(12), 111242.

Assadizadeh M, et al. (2023) Oligomer formation of SARS-CoV-2 ORF8 through 73YIDI76 motifs regulates immune response and non-infusion antiviral interactions. Frontiers in molecular biosciences, 10, 1270511.

Eriksson O, et al. (2022) Combining hypothesis- and data-driven neuroscience modeling in FAIR workflows. eLife, 11.

Raimúndez E, et al. (2021) COVID-19 outbreak in Wuhan demonstrates the limitations of publicly available case numbers for epidemiological modeling. Epidemics, 34, 100439.

Raimúndez E, et al. (2020) Model-based analysis of response and resistance factors of cetuximab treatment in gastric cancer cell lines. PLoS computational biology, 16(3), e1007147.

Alabert C, et al. (2020) Domain Model Explains Propagation Dynamics and Stability of Histone H3K27 and H3K36 Methylation Landscapes. Cell reports, 30(4), 1223.

Schuh L, et al. (2020) H4K20 Methylation Is Differently Regulated by Dilution and Demethylation in Proliferating and Cell-Cycle-Arrested Xenopus Embryos. Cell systems,

11(6), 653.

Bast L, et al. (2018) Increasing Neural Stem Cell Division Asymmetry and Quiescence Are Predicted to Contribute to the Age-Related Decline in Neurogenesis. Cell reports, 25(12), 3231.

Fröhlich F, et al. (2018) Efficient Parameter Estimation Enables the Prediction of Drug Response Using a Mechanistic Pan-Cancer Pathway Model. Cell systems, 7(6), 567.

Hross S, et al. (2018) Mechanistic description of spatial processes using integrative modelling of noise-corrupted imaging data. Journal of the Royal Society, Interface, 15(149), 20180600.