Resource Summary Report

Generated by NIF on Apr 25, 2025

gprege

RRID:SCR_001324

Type: Tool

Proper Citation

gprege (RRID:SCR_001324)

Resource Information

URL: http://www.bioconductor.org/packages/release/bioc/html/gprege.html

Proper Citation: gprege (RRID:SCR_001324)

Description: Software R package for Gaussian Process Ranking and Estimation of Gene Expression time-series. The software fits two Gaussian processes (GPs) with an radial basis function (RBF) (+ noise diagonal) kernel on each profile. One GP kernel is initialized wih a short lengthscale hyperparameter, signal variance as the observed variance and a zero noise variance. It is optimized via scaled conjugate gradients (netlab). A second GP has fixed hyperparameters: zero inverse-width, zero signal variance and noise variance as the observed variance. The log-ratio of marginal likelihoods of the two hypotheses acts as a score of differential expression for the profile. Comparison via receiver operating characteristic curves (ROC curves) is performed against Bayesian hierarchical model for the analysis of time-series (BATS) (Angelini et.al, 2007).

Abbreviations: gprege

Synonyms: Gaussian Process Ranking and Estimation of Gene Expression time-series

Resource Type: software resource

Defining Citation: PMID:21599902

Keywords: differential expression, microarray, preprocessing, time course, bio.tools

Funding:

Availability: Free, Available for download, Freely available

Resource Name: gprege

Resource ID: SCR_001324

Alternate IDs: OMICS_02011, biotools:gprege

Alternate URLs: https://bio.tools/gprege

License: GNU Affero General Public License, v3

Record Creation Time: 20220129T080206+0000

Record Last Update: 20250420T014026+0000

Ratings and Alerts

No rating or validation information has been found for gprege.

No alerts have been found for gprege.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 1 mentions in open access literature.

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

Janssens GE, et al. (2015) Protein biogenesis machinery is a driver of replicative aging in yeast. eLife, 4, e08527.