

Resource Summary Report

Generated by [SPARC SAWG](#) on Aug 9, 2026

[gprege](#)

RRID:SCR_001324

Type: Tool

Proper Citation

gprege (RRID:SCR_001324)

Resource Information

URL: <https://bioconductor.org/packages//2.11/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 with 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

Availability: Free, Available for download, Freely available

Resource Name: gprege

Resource ID: SCR_001324

Alternate IDs: OMICS_02011, biotools:gprege

Alternate URLs: <http://www.bioconductor.org/packages/release/bioc/html/gprege.html>

License: GNU Affero General Public License, v3

Record Creation Time: 20220129T080206+0000

Record Last Update: 20260808T185740+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 [SPARC SAWG](#) .

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