# **Resource Summary Report**

Generated by dkNET on Apr 28, 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>dkNET</u>.

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