

# Package ‘plier’

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**Title** Implements the Affymetrix PLIER algorithm

**Version** 1.79.0

**Author** Affymetrix Inc., Crispin J Miller, PICR

**Description** The PLIER (Probe Logarithmic Error Intensity Estimate) method produces an improved signal by accounting for experimentally observed patterns in probe behavior and handling error at the appropriately at low and high signal values.

**Maintainer** Crispin Miller <cmiller@picr.man.ac.uk>

**Depends** R (>= 2.0), methods

**Imports** affy, Biobase, methods

**License** GPL (>= 2)

**biocViews** Software

**git\_url** <https://git.bioconductor.org/packages/plier>

**git\_branch** devel

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**Repository** Bioconductor 3.22

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| justPlier | <i>Implements the PLIER algorithm</i> |
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## Description

Provides a wrapper around Affymetrix’s API to provide an implementation of the PLIER algorithm

**Usage**

```
justPlier(eset=ReadAffy(),replicate=1:length(eset),get.affinities=FALSE,normalize=FALSE,norm.type
```

**Arguments**

|                      |                                                                                                   |
|----------------------|---------------------------------------------------------------------------------------------------|
| eset                 | An AffyBatch object containing the raw data                                                       |
| replicate            | A factor containing the replicate structure to use for grouping samples                           |
| get.affinities       | If TRUE, then return affinities in the description@preprocessing slot of the ExpressionSet object |
| normalize            | If TRUE then apply quantile normalization to the probes before generating expression calls        |
| norm.type            | Can be 'separate', 'pmonly', 'mmonly' or 'together'                                               |
| augmentation         | Model parameter                                                                                   |
| defaultaffinity      | Model parameter                                                                                   |
| defaultconcentration | Model parameter                                                                                   |
| attenuation          | Model parameter                                                                                   |
| seaconvergence       | Model parameter                                                                                   |
| seaiteration         | Model parameter                                                                                   |
| gmcutoff             | Model parameter                                                                                   |
| probepenalty         | Model parameter                                                                                   |
| concpenalty          | Model parameter                                                                                   |
| usemm                | Model parameter                                                                                   |
| usemodel             | Model parameter                                                                                   |
| fitaffinity          | Model parameter                                                                                   |
| plierconvergence     | Model parameter                                                                                   |
| plieriteration       | Model parameter                                                                                   |
| dropmax              | Model parameter                                                                                   |
| lambdalimit          | Model parameter                                                                                   |
| optimization         | Model parameter                                                                                   |

**Details**

This function is a thin wrapper around the Affymetrix implementation. For more details, including information about the meaning of the different model parameters, please see the plier documentation at [www.affymetrix.com](http://www.affymetrix.com).

**Value**

An Expression set containing PLIER generated expression calls

**Author(s)**

Crispin J Miller (wrapper), Earl Hubbell (algorithm)

## **References**

[bioinf.picr.man.ac.uk](http://bioinf.picr.man.ac.uk) [www.affymetrix.com](http://www.affymetrix.com)

## **See Also**

`normalize.AffyBatch.quantiles`

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\* **misc**  
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