Principal Components Analysis Documentation

Module name: PCA
Description: Principal Components Analysis
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Performs a principal components analysis.This implementation is an adaptation of the MultiExperiment Viewer PCA analysis (mev.tm4.org).

References:

Raychaudhuri S, Stuart JM, and Altman RB. (2000) Principal components analysis to summarize microarray experiments: application to sporulation time series. Pac. Symp. Biocomput. 455-466.

Parameters:

Name	Description
input_filename	The input file (.res, .gct, .odf)
compute_pcs_of	Compute principal components of rows (features) or columns (samples)
output_file	The stub for the output files

Return Value:

1. s matrix — The matrix of eigenvalues (1 per principal component)
2. t matrix — The matrix of eigenvectors (1 per principal component)
3. u matrix — The principal components matrix
4. Stdout.txt: the ”stdout” text output from running the program.

Platform dependencies:

Task type: Dimension Reduction
CPU type: any
OS: any
Java JVM level: 1.3
Language: Java