

Resource Summary Report

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GEDI

RRID:SCR_008530

Type: Tool

Proper Citation

GEDI (RRID:SCR_008530)

Resource Information

URL: <https://apps.childrenshospital.org/clinical/research/ingber/GEDI/samples.htm>

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Description: A program that opens a new perspective to the analysis of microarray data (e.g., gene expression profiling). Unlike traditional gene clustering software, GEDI is primarily sample-oriented rather than gene-oriented. By treating each high-dimensional sample, such as one microarray experiment, as an object, it accentuates the genome-wide response of a tissue or a patient and treats it as an integrated biological entity. Hence, GEDI honors the new spirit of a system-level approach in biology. Yet, it also allows the researcher to quickly zoom-in from global patterns onto individual genes that exhibit interesting expression behavior and retrieve gene-specific information. Therefore, GEDI unites a novel holistic perspective with the traditional gene-centered approach in molecular biology. GEDI allows experimental biologists or clinicians with no bioinformatics background to efficiently and intuitively navigate through a large number of expression profiles, each with a memorable face, and inspect, group and collect them, like managing a stack of baseball cards. **DYNAMIC ANALYSIS:** The unique strength of GEDI, for which GEDI was originally developed, is that it can display the results of parallel monitoring of multiple high-dimensional time courses, such as the comparison of expression profile time evolution in response to a series of drugs. GEDI creates animated graphics showing how 10,000s of genes change their expression over time in response to 100s of separately tested drugs. **STATIC ANALYSIS:** The signature graphical output of GEDI, the GEDI-mosaics provide a unique, one-glance visual engram that gives each microarray or other high-dimensional dataset a face. A characteristic of GEDI's analysis is that it does not prejudicate any particular structure in the data (such as clusters or hierarchical organization). Thus, it allows the researcher to use human pattern recognition to perform a global first-level analysis of the data. **Sponsor.** The project was supported by the Air Force Office of Scientific Research and the National Health Institutes. It is distributed for free academic use by the Childrens Hospital, Boston., THIS RESOURCE IS NO LONGER IN SERVICE. Documented on September 16,2025.

Abbreviations: GEDI

Synonyms: The Gene Expression Dynamics Inspector, Gene Expression Dynamics Inspector

Resource Type: software resource

Availability: THIS RESOURCE IS NO LONGER IN SERVICE

Resource Name: GEDI

Resource ID: SCR_008530

Alternate IDs: nif-0000-30604

Record Creation Time: 20220129T080247+0000

Record Last Update: 20260815T182339+0000

Ratings and Alerts

No rating or validation information has been found for GEDI.

No alerts have been found for GEDI.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 73 mentions in open access literature.

Listed below are recent publications. The full list is available at [kravitz2](#) .

Aikio M, et al. (2025) Opposing roles of p38 γ -mediated phosphorylation and PRMT1-mediated arginine methylation in driving TDP-43 proteinopathy. Cell reports, 44(1), 115205.

Marcilio-Silva V, et al. (2025) Integrating remote sensing and field inventories to understand determinants of urban forest diversity and structure. Ecology, 106(2), e70020.

Simard M, et al. (2025) A New Global Mangrove Height Map with a 12 meter spatial resolution. Scientific data, 12(1), 15.

Netsianda A, et al. (2025) Aboveground biomass estimation in a grassland ecosystem using Sentinel-2 satellite imagery and machine learning algorithms. Environmental monitoring and assessment, 197(2), 138.

Russo NJ, et al. (2025) Spaceborne and UAV-LiDAR reveal hammer-headed bat preference for intermediate canopy height and diverse structure in a Central African rainforest. Movement ecology, 13(1), 30.

Bueno IT, et al. (2025) Aboveground biomass density maps for post-hurricane Ian forest monitoring in Florida. *Scientific data*, 12(1), 1189.

Rex FE, et al. (2025) Spatial Characterization of Woody Species Diversity in Tropical Savannas Using GEDI and Optical Data. *Sensors (Basel, Switzerland)*, 25(2).

Gundala RR, et al. (2025) Harnessing big data for enhanced genome-wide prediction in winter wheat breeding. *TAG. Theoretical and applied genetics. Theoretische und angewandte Genetik*, 138(9), 224.

Shi S, et al. (2025) Analyzing canopy structure effects based on LiDAR for GPP-SIF relationship and GPP estimation. *Frontiers in plant science*, 16, 1561826.

Fu L, et al. (2025) Accuracy assessment of topography and forest canopy height in complex terrain conditions of Southern China using ICESat-2 and GEDI data. *Frontiers in plant science*, 16, 1547688.

Xu J, et al. (2025) Late Quaternary fluctuation in upper range limit of trees shapes endemic flora diversity on the Tibetan Plateau. *Nature communications*, 16(1), 1819.

Posch MJ, et al. (2025) Effect of manual decongestive therapy on cardiac preload in critically ill patients: a randomized controlled trial. *Annals of intensive care*, 15(1), 39.

Luzak V, et al. (2025) SLAM-seq reveals independent contributions of RNA processing and stability to gene expression in African trypanosomes. *Nucleic acids research*, 53(3).

Xu J, et al. (2025) Spatio-temporally explicit reconstruction of upper range limit of trees since the LGM over the Tibetan Plateau. *Scientific data*, 12(1), 868.

Su Y, et al. (2025) Canopy height and biomass distribution across the forests of Iberian Peninsula. *Scientific data*, 12(1), 678.

Hunka N, et al. (2024) Intergovernmental Panel on Climate Change (IPCC) Tier 1 forest biomass estimates from Earth Observation. *Scientific data*, 11(1), 1127.

Zheng J, et al. (2024) Effect of heart rate control with ivabradine on hemodynamic in patients with sepsis: study protocol for a prospective, multicenter, randomized controlled trial. *Trials*, 25(1), 710.

Cooley SS, et al. (2024) Combining spaceborne lidar from the Global Ecosystem Dynamics Investigation with local knowledge for monitoring fragmented tropical landscapes: A case study in the forest-agriculture interface of Ucayali, Peru. *Ecology and evolution*, 14(8), e70116.

Xu L, et al. (2024) Forest aboveground biomass estimation based on spaceborne LiDAR combining machine learning model and geostatistical method. *Frontiers in plant science*, 15, 1428268.

Ma X, et al. (2024) A global product of 150-m urban building height based on spaceborne lidar. *Scientific data*, 11(1), 1387.