

Resource Summary Report

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GATE

RRID:SCR_002756

Type: Tool

Proper Citation

GATE (RRID:SCR_002756)

Resource Information

URL: <http://yu68.github.io/GATE/>

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Description: Model-based, open source software analysis tool for chromatin states prediction based on time-course epigenetic marks data. It uses a combinatory Finite Mixture model nested with HMM to model the time course marks data in which each single hidden markov model describes the hidden states for a region set across different time points.

Synonyms: Genomic Annotation from Time-couse Epigenomic data, Genomic Annotation from Time-couse Epigenomic data (GATE)

Resource Type: data analysis resource

Defining Citation: [PMID:23033340](#)

Keywords: chromatin state prediction software, time course epigenetic data, bio.tools

Availability: Free, Freely available, Available for download

Resource Name: GATE

Resource ID: SCR_002756

Alternate IDs: OMICS_03065, biotools:gate

Alternate URLs: <https://github.com/yu68/GATE>, <https://bio.tools/gate>

Record Creation Time: 20220129T080215+0000

Record Last Update: 20260905T132453+0000

Ratings and Alerts

No rating or validation information has been found for GATE.

No alerts have been found for GATE.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 327 mentions in open access literature.

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

Chen L, et al. (2026) Predicting circRNA subcellular localization by fusing circRNA sequence and network information. Scientific reports, 16(1).

Romanchek G, et al. (2026) Monte Carlo validation of signal-to-noise improvements in transmission imaging using correlated annihilation photon pairs. Scientific reports, 16(1).

Yu N, et al. (2026) stGCL: a versatile cross-modality fusion method based on multi-modal graph contrastive learning for spatial transcriptomics. Genome biology, 27(1).

Choi SY, et al. (2026) Individual differences in effects of stressful life events on childhood ADHD: genetic, neural, and familial contributions. Journal of child psychology and psychiatry, and allied disciplines, 67(5), 788.

Wang T, et al. (2026) VIEWER: an extensible visual analytics framework for enhancing mental healthcare. Journal of the American Medical Informatics Association : JAMIA, 33(1), 144.

Lienhardt O, et al. (2026) Gravity versus pump-driven infusion in targeted radionuclide therapy: a model-based dosimetric evaluation of extravasation. EJNMMI physics, 13(1).

Jia Y, et al. (2025) Experimental validation of Geant4 nuclear interaction models in dose calculations of therapeutic carbon ion beams. Medical physics, 52(7), e17906.

Jos?? Santo R, et al. (2025) openSSS: an open-source implementation of scatter estimation for 3D TOF-PET. EJNMMI physics, 12(1), 17.

Mummaneni G, et al. (2025) optiGAN: a deep learning-based alternative to optical photon tracking in Python-based GATE (10+). Physics in medicine and biology, 70(13).

Oumano M, et al. (2025) Shielding resources for four common radiopharmaceuticals utilized for imaging and therapy: Tc-99m, F-18, I-131, and Lu-177. Journal of applied clinical medical physics, 26(5), e70084.

Karadeniz-Yildirim A, et al. (2025) Investigation of the tissue equivalence of typical 3D-printing materials for application in internal dosimetry using monte carlo simulations. Physical and engineering sciences in medicine, 48(2), 665.

Spiliopoulou A, et al. (2025) Genome-Wide Aggregated Trans Effects Analysis Identifies Genes Encoding Immune Checkpoints as Core Genes for Rheumatoid Arthritis. *Arthritis & rheumatology* (Hoboken, N.J.), 77(7), 817.

Saatchian E, et al. (2025) Promising application of nano-WO₃/epoxy composite in intensity-modulated brachytherapy: a simulation study. *Radiation oncology journal*, 43(1), 22.

Lassen ML, et al. (2025) Positron Range Correction Helps Enhance the Image Quality of Cardiac ⁸²Rb PET/CT. *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*, 66(3), 466.

Bharathi PG, et al. (2025) Machine learning-assisted event classification in cadmium zinc telluride positron emission tomography detectors leveraging entanglement-informed angular correlations. *Scientific reports*, 16(1), 3116.

Qi J, et al. (2025) STIFT: spatiotemporal transcriptomics integration through spatially informed multi-timepoint bridging. *Briefings in bioinformatics*, 26(6).

Li S, et al. (2025) Noise-aware system generative model (NASGM): positron emission tomography (PET) image simulation framework with observer validation studies. *Medical physics*, 52(7), e17962.

Liu J, et al. (2025) Boosting AlphaFold Protein Tertiary Structure Prediction through MSA Engineering and Extensive Model Sampling and Ranking in CASP16. *bioRxiv : the preprint server for biology*.

Jalilifar M, et al. (2025) AI-enhanced patient-specific dosimetry in I-131 planar imaging with a single oblique view. *Scientific reports*, 15(1), 24381.

Salas-Ramirez M, et al. (2025) Radiation-induced double-strand breaks by internal ex vivo irradiation of lymphocytes: Validation of a Monte Carlo simulation model using GATE and Geant4-DNA. *Zeitschrift fur medizinische Physik*, 35(3), 235.