

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: 20260919T195004+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 [nidm-terms](#) .

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

Romancheck 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).

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.

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).

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

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).

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.

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.

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.

Lewis R, et al. (2025) A bespoke rapid evidence review process engaging stakeholders for supporting evolving and time-sensitive policy and clinical decision-making: reflection and lessons learned from the Wales COVID-19 Evidence Centre 2021-2023. *Health research policy and systems*, 23(1), 36.

Zhou L, et al. (2025) Unveiling patterns in spatial transcriptomics data: a novel approach utilizing graph attention autoencoder and multiscale deep subspace clustering network. *GigaScience*, 14.

Salas-Ramirez M, et al. (2025) In silico analysis of radiation-induced double-strand breaks by internal ex vivo irradiation of lymphocytes for 45 alpha- and beta/gamma-emitting radionuclides. *EJNMMI research*, 15(1), 21.