

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: 20260725T190530+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 317 mentions in open access literature.

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

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.

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.

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.

José 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.

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.

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.

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).

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

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.

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.

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.

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.

Nakanishi K, et al. (2025) A Monte Carlo study comparing dead-time losses of a gamma camera between tungsten functional paper and lead sheet for dosimetry in targeted radionuclide therapy with Lu-177. *Annals of nuclear medicine*, 39(2), 199.

Lu Z, et al. (2025) Automatic bone marrow segmentation for precise [177Lu]Lu-PSMA-617 dosimetry. *Medical physics*, 52(6), 3970.

Akolekar H, et al. (2025) The role of generative AI tools in shaping mechanical engineering education from an undergraduate perspective. *Scientific reports*, 15(1), 9214.

Razdevšek G, et al. (2025) Flexible and modular PET: Evaluating the potential of TOF-DOI panel detectors. *Medical physics*, 52(5), 2845.