

Resource Summary Report

Generated by [dkNET](#) on Jul 30, 2026

OpenTOPAS

RRID:SCR_026927

Type: Tool

Proper Citation

OpenTOPAS (RRID:SCR_026927)

Resource Information

URL: <https://github.com/OpenTOPAS/OpenTOPAS>

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Description: Software Monte Carlo tool for particle simulation. Used for simulation of medical applications of ionizing radiation with the Monte Carlo method. Allows to assemble and control library of simulation objects (geometry components, particle sources, scorers, etc.) with no need to write C++ code and without knowledge of underlying Geant4 Simulation Toolkit.

Synonyms: , TOPAS, TOOl for PArticle Simulation

Resource Type: software application, source code, software resource

Defining Citation: [PMID:23127075](#), [PMID:32247964](#)

Keywords: Monte Carlo method, particle simulation, simulation of medical applications, ionizing radiation,

Funding: NCI R01 CA140735;
NCI U24 CA215123

Availability: Free, Available for download, Freely available

Resource Name: OpenTOPAS

Resource ID: SCR_026927

Alternate URLs: <https://opentopas.github.io/>

License: MIT license

Record Creation Time: 20250513T055331+0000

Record Last Update: 20260729T044649+0000

Ratings and Alerts

No rating or validation information has been found for OpenTOPAS.

No alerts have been found for OpenTOPAS.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 2 mentions in open access literature.

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

Ortiz R, et al. (2025) A refined approach to compute nanodosimetric quantities for proton and ion radiotherapy treatment planning. Physics in medicine and biology, 70(23).

Onecha VV, et al. (2025) Space- and Time-Defined Monte Carlo Dosimetry Explains Ovarian Cancer Cell Viability in Targeted α -Particle Therapy With Astatine 211-ParaThanatrace. International journal of radiation oncology, biology, physics.