Resource Summary Report

Generated by Kravitz on Sep 10, 2026

Simbody(tm): SimTK Multibody Dynamics Toolset

RRID:SCR_002684
Type: Tool

Proper Citation

Simbody(tm): SimTK Multibody Dynamics Toolset (RRID:SCR_002684)

Resource Information

URL: https://simtk.org/home/simbody

Proper Citation: Simbody(tm): SimTK Multibody Dynamics Toolset (RRID:SCR_002684)

Description: This project is a SimTK Core toolset providing general multibody dynamics capability, i.e., the capability to solve Newton's 2nd law F=ma in any set of coordinates. The techniques of rigid body mechanics are used to provide results in Order(n) time for any set of n coordinates. This can be used for internal coordinate modeling of molecules, or for coarse-grained models based on larger chunks. It is also useful for large-scale mechanical models, such as neuromuscular models of human gait. Simbody is provided as an open source, object-oriented C++ API and delivers high-performance, accuracy-controlled science/engineering-quality results. Binaries of this software are bundled with other SimTK Core modules.

Synonyms: Simbody

Resource Type: simulation software, software application, software resource

Defining Citation: PMID:25866705

Keywords: articulated body, coarse-grained molecule modeling, constrained motion, internal coordinates, mechanical simulation, mechanics, molecular dynamics, multibody dynamics, rigid body, simtk core, skeletal mechanics, torsion coordinates

Availability: Free, Available for download, Freely available

Resource Name: Simbody(tm): SimTK Multibody Dynamics Toolset

Resource ID: SCR_002684

Alternate IDs: nif-0000-23309

Record Creation Time: 20220129T080214+0000

Record Last Update: 20260905T132451+0000

Ratings and Alerts

No rating or validation information has been found for Simbody(tm): SimTK Multibody Dynamics Toolset.

No alerts have been found for Simbody(tm): SimTK Multibody Dynamics Toolset.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 1 mentions in open access literature.

Listed below are recent publications. The full list is available at Kravitz .

Chatzipapas KP, et al. (2020) Ionizing Radiation and Complex DNA Damage: Quantifying the Radiobiological Damage Using Monte Carlo Simulations. Cancers, 12(4).