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

Proper Citation

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Resource Information

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

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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 resource, software application

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: Public, Free, Acknowledgement requested

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Resource ID: SCR_002684
**Alternate IDs:** nif-0000-23309

**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](https://www.ncbi.nlm.nih.gov/scicrunch/)

**Usage and Citation Metrics**

We have not found any literature mentions for this resource.