

Resource Summary Report

Generated by [SPARC SAWG](#) on Aug 9, 2026

SpineML

RRID:SCR_015641

Type: Tool

Proper Citation

SpineML (RRID:SCR_015641)

Resource Information

URL: <https://github.com/SpineML/spineml>

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Description: Declarative XML based model description language for large scale neural network models. Its syntax is designed primarily for the specification of large scale networks of point neurons but also has the flexibility to describe biologically constrained models consisting of non standard components (such as gap junctions).

Synonyms: The Spiking Neural Mark-up Language, The Spiking Neural Mark-up Language (SpineML)

Resource Type: software resource, programming language

Defining Citation: [PMID:24253973](#)

Keywords: neuroinformatics, neural network, point neuron, gap junction, low entropy model specification, lems

Funding: BIMPA EP/G015627/1

Availability: Freely Available

Resource Name: SpineML

Resource ID: SCR_015641

Alternate URLs: <http://spineml.github.io/>

Record Creation Time: 20220129T080326+0000

Record Last Update: 20260808T190524+0000

Ratings and Alerts

No rating or validation information has been found for SpineML.

No alerts have been found for SpineML.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 5 mentions in open access literature.

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

James SS, et al. (2018) Integrating Brain and Biomechanical Models-A New Paradigm for Understanding Neuro-muscular Control. *Frontiers in neuroscience*, 12, 39.

Cope AJ, et al. (2018) Abstract concept learning in a simple neural network inspired by the insect brain. *PLoS computational biology*, 14(9), e1006435.

Cope AJ, et al. (2017) A computational model of the integration of landmarks and motion in the insect central complex. *PloS one*, 12(2), e0172325.

Cope AJ, et al. (2017) SpineCreator: a Graphical User Interface for the Creation of Layered Neural Models. *Neuroinformatics*, 15(1), 25.

Cope AJ, et al. (2016) A Model for an Angular Velocity-Tuned Motion Detector Accounting for Deviations in the Corridor-Centering Response of the Bee. *PLoS computational biology*, 12(5), e1004887.