

# **Computational modelling at the Silver Lab**

NeuroML, Open Source Brain, OpenWorm, MDF

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Ankur Sinha

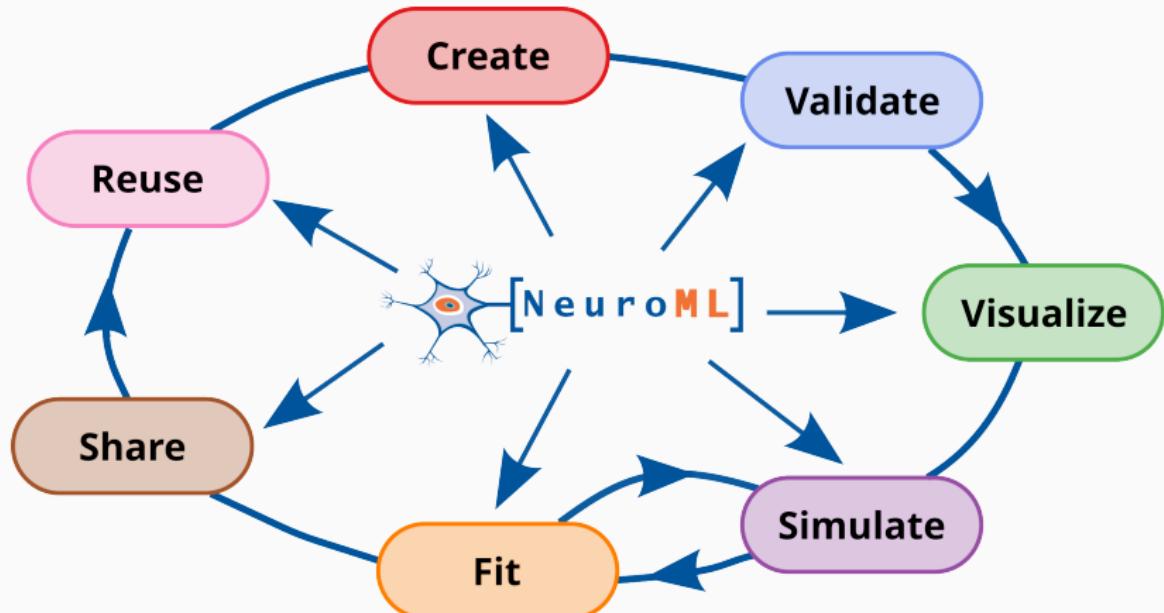
Padraig Gleeson

R Angus Silver

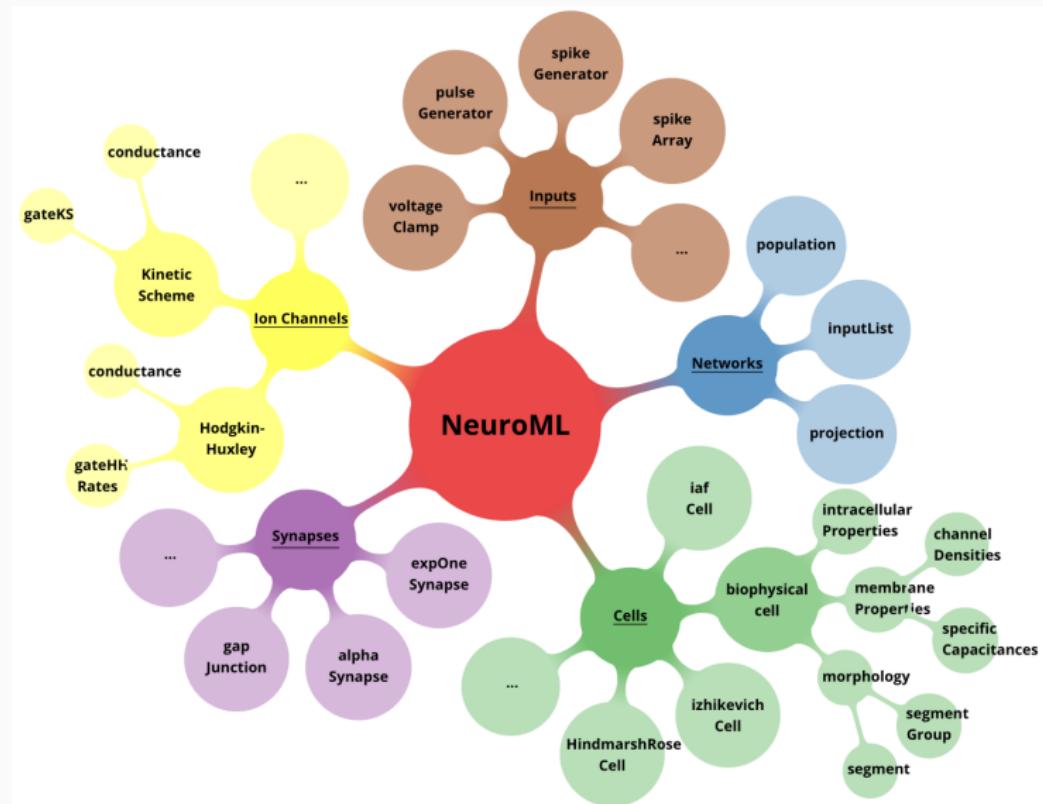
<https://silverlab.org>

2024-10-21

# NeuroML: data driven biophysically detailed modelling

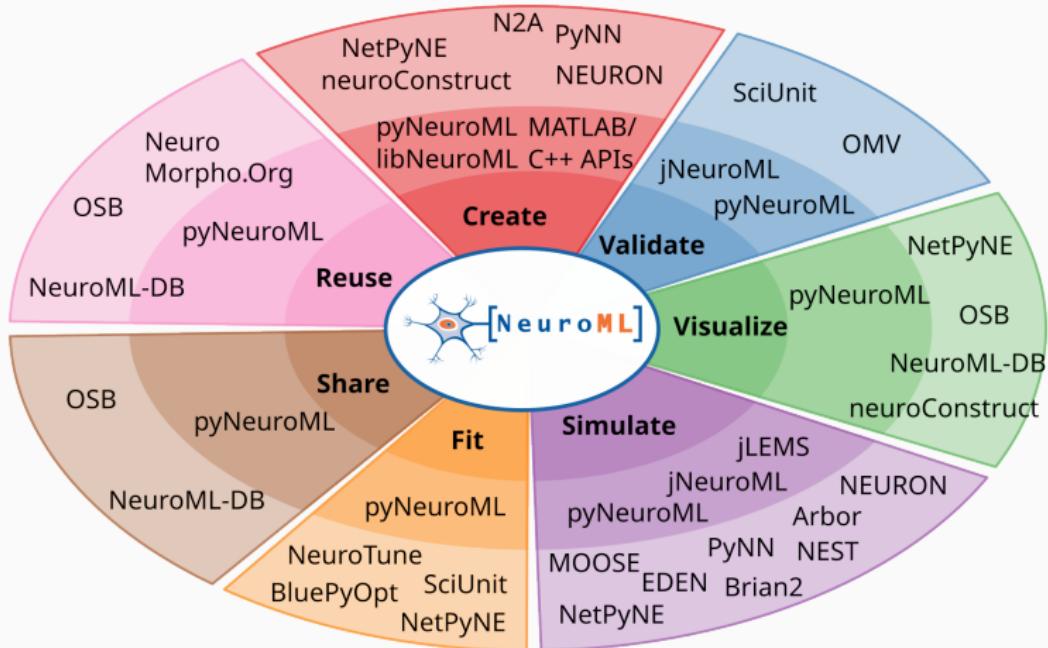


# NeuroML standard: curated model elements

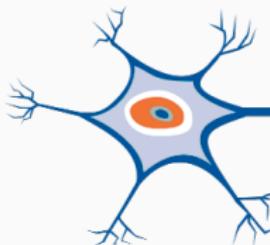


<sup>1</sup> Full standard is at: <https://docs.neuroml.org/Userdocs/Specification.html>

# NeuroML software ecosystem



# NeuroML: linking with other standards



[NeuroML]



SOML

# NeuroML: publication

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## The NeuroML ecosystem for standardized multi-scale modeling in neuroscience

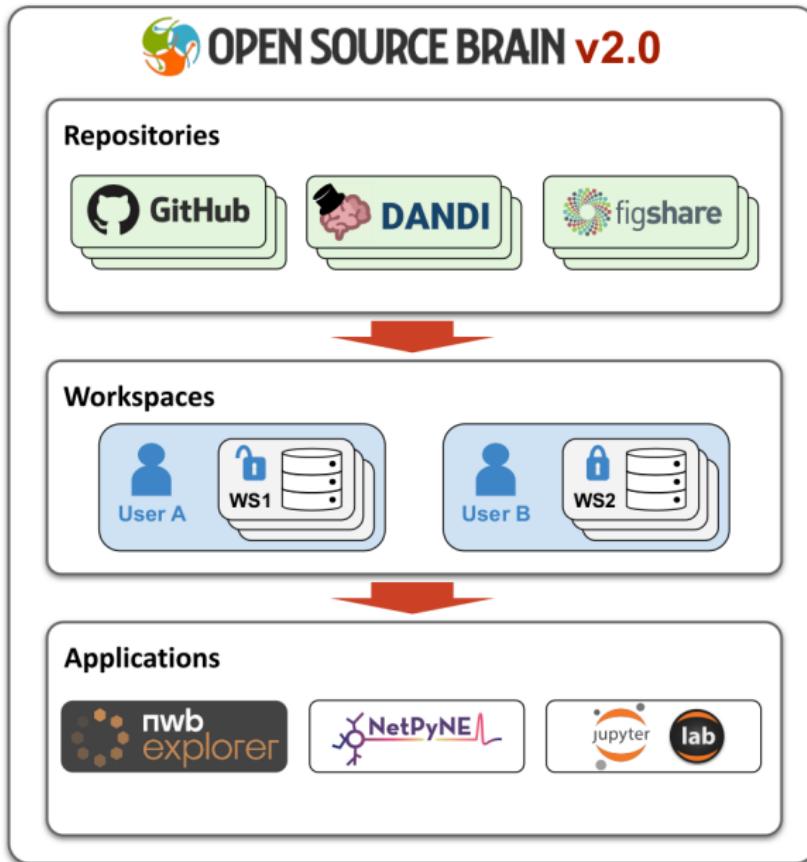
Ankur Sinha, Padraig Gleeson Bóris Marin, Salvador Dura-Bernal, Sotirios Panagiotou, Sharon Crook, Matteo Cantarelli, Robert C. Cannon, Andrew P. Davison ... R. Angus Silver ... [show 1 more](#)

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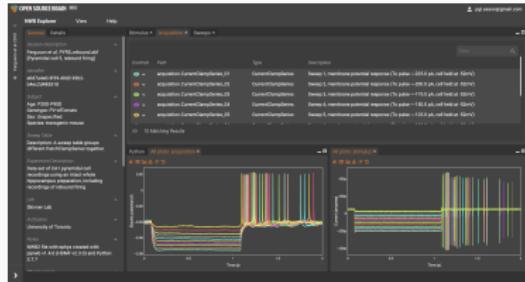
<https://doi.org/10.7554/eLife.95135.1>

<https://docs.neuroml.org>

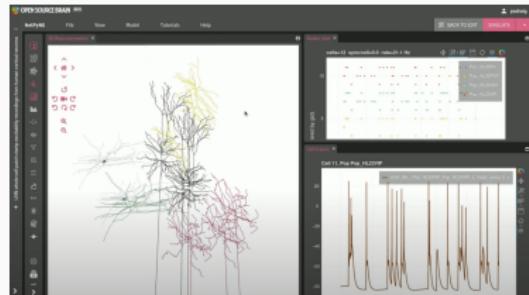
# Open Source Brain: scalable integrated research environment



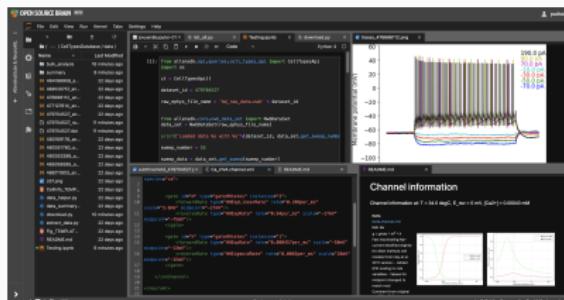
# Open Source Brain: applications



Data analysis



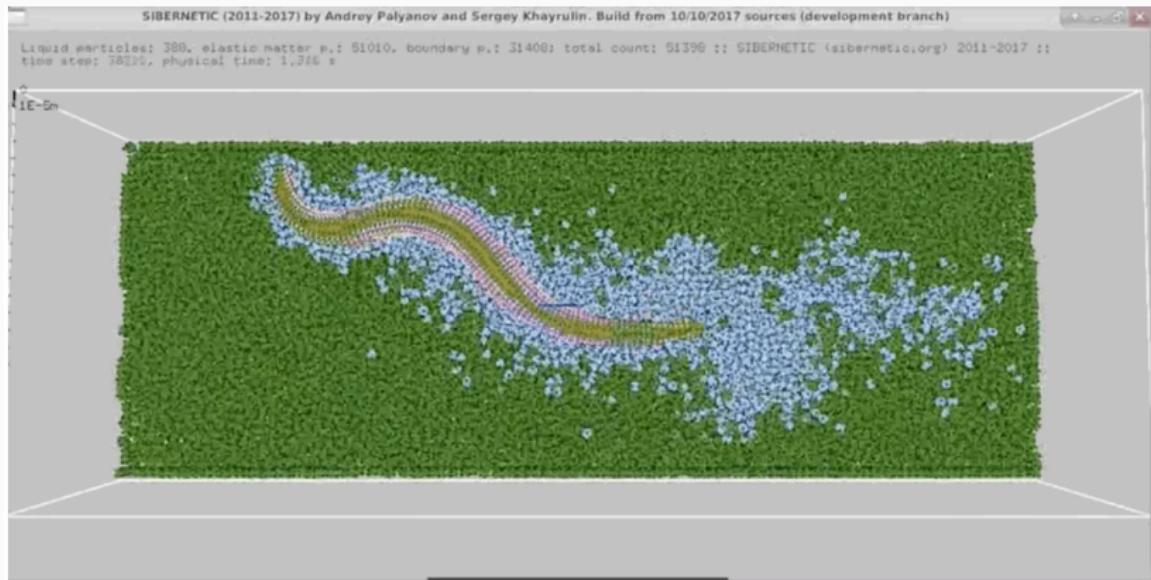
Computational modelling



Custom analysis/modelling pipelines

<https://opensourcebrain.org>

# OpenWorm: open *C. elegans* modelling and research



<https://openworm.org>

# MDF: linking different types of modelling

