Software and Support in the CEG

Center for Integrative Biomedical Computation Tools

An open source image segmentation tool.

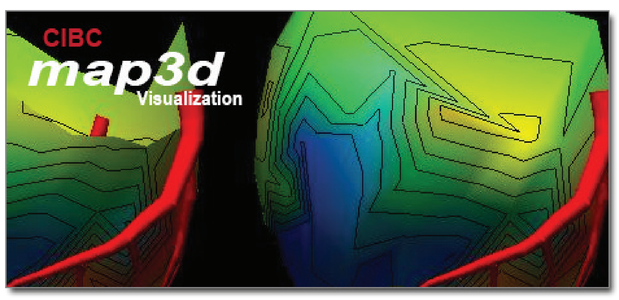
An open source meshing tool for creating biomedical models.

GRÖMeR

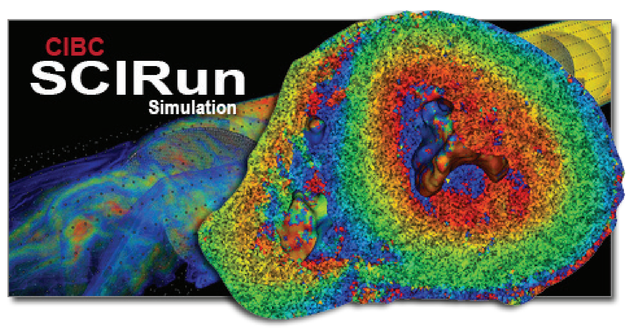
A MATLAB tool for mesh registration and manipulation
J. Bergquist, FIMH: 10th International Conference, (2019), 37-45

Pfeifer

An open source MATLAB tool for cardiac signal processing.
R. Rodenhauser, Journal of Open Source Software, (2018), 472.



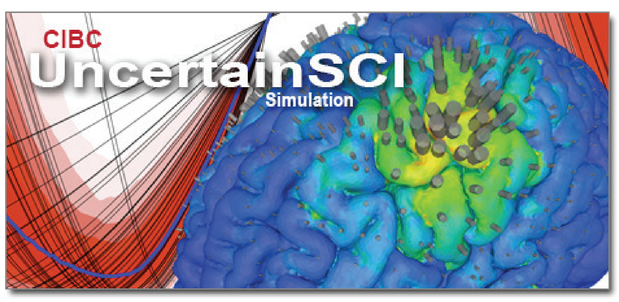
An open source visualization and data manipulation tool for time series data on 3D models.



An open source problem solving environment to manipulate and visualize data.

ShapeWorks
An Integrated Suite for Shape Representation and Analysis & more...

An open source tool for statistical shape analysis.
J. Cates, Statistical Shape and Deformation Analysis. Academic Press, (2017). 257-298.



An open source python based tool for parametric uncertainty quantification.
A. Narayan, Computers in Biology and Medicine, (2023)

the EDGAR Time Signal Catalog

An open source data repository for electrocardiographic data.
K. Aras, Journal of Electrocardiology, (2015), 975-981

Additional Software

CARP and openCARP are a pair of software platforms for implementing computational simulations of cardiac electrophysiology.
G. Plank, Computer Methods and Programs in Biomedicine, (2021)
E. Vigmond, Progress in Biophysics and Molecular Biology, (2008) 3-18
K. Gillette, Medical Image Analysis, (2021)

Python is a high-level general purpose programming language.
G. van Rossum and F.L. Drake (eds), Python Reference Manual, PythonLabs, Virginia, USA, 2001. Available at http://www.python.org

MATLAB is a programing and numerical computing platform developed for engineers and scientists.
The MathWorks, Inc. (2022). MATLAB Available: https://www.mathworks.com.

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Collaborating Institutions