
FOS Scientific Tools Documentation

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This document provides a list of Free and Open Source Tools tailored to scientific and engineering usage for all fields. You are welcome to contribute. Each tool should have the website, purpose and a description as a descriptive list. Hardware tools are also welcome.

1.1 General Tools

1.1.1 Python

Website <https://docs.python.org/3/>

Purpose Programming Language

Description Python is a programming language which is heavily used by scientists and engineers. There are many packages and modules out there, which implement a lot of libraries about all topics and all of those are at your finger tips at <https://pypi.python.org/>.

1.1.2 GNU Octave

Website <https://www.gnu.org/software/octave/>

Purpose Programming Language, Numerical Computation

Description GNU Octave is a numerical computation tool which behaves pretty similar to Matlab. It comes with many toolboxes which are focused on specific areas like image processing. It also provides a programming language, so you are able to develop your own algorithms.

1.2 Electronics

1.2.1 Circuit Simulation

Quite Universal Circuit Simulator (Qucs)

Website <http://qucs.sourceforge.net/>

Purpose Circuit Simulation

Description Qucs is an integrated circuit simulator which means you are able to setup a circuit with a graphical user interface (GUI) and simulate the large-signal, small-signal and noise behaviour of the circuit. After that simulation has finished you can view the simulation results on a presentation page or window.

CHAPTER 2

Indices and tables

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