MEEP (MIT Electromagnetic Equation Propagation)

This page provides links to various nanoHUB resources related to MEEP (MIT Electromagnetic Equation Propagation)

The [MEEP tool], simulates MEEP.

The [Nanofilm lab tool], powered by MEEP, simulates the interaction of electromagnetic plane wave and nanoscale metallic film with subwavelength slit.

The [90 Degrees Beam Propagation tool], powered by MEEP, implements the finite-difference time-domain (FDTD) method for computation in electromagnetism. This tool focuses on electromagnetic fields passing through two waveguides arranged perpendicularly.

The [Optics Labs tool], powered by MEEP, allows a user to simulate the passage of electromagnetic light through multiple lenses.

The [Nanoparticles Array Lab tool], powered by MEEP, uses the finite-difference time-domain (FDTD) code to simulate the interaction of light with an array of metallic nano-particles.

The [Nanoparticle Quantitative Lab tool], powered by MEEP, uses the finite-difference time-domain (FDTD) to quantitatively determine the reflection of transmission co-efficient of a metallic (silver and gold) and dielectric nano-particle

The [Molecular Foundry Photonics Toolkit], built on the open-source finite-difference time-domain simulation software package MEEP, is a simulation and analysis suite for nano-photonics and plasmonics.

The [Biconvex Lens tool], powered by MEEP, enables the user to visualize selective passage of light through the lens-system.

The [Optical Beam Focusing System tool], powered by MEEP, generates focused optical beams using principles of electromagnetic optics.

The [Nano-Plasmonic Bowtie Antenna Simulator] allows users to perform finite-difference time-domain (FDTD) simulations of nano-scale bowtie antennae of arbitrary geometry with several different material models.

For detailed descriptions, tutorial, and examples, please refer to: 50e6d0d555eb2213>