

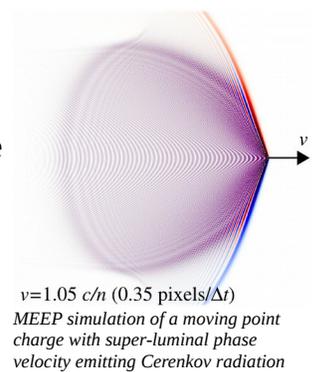
Open-Source Computational Electromagnetics Symposium: Finite-Difference Time Domain (FDTD) using MEEP

Organized by the Dallas IEEE Photonics Society

Ardavan Oskooi
Founder & CEO, Simpetus
Sc.D., Massachusetts Institute of Technology

Wednesday November 16th, 2016. 9am-5pm
Nedderman Hall, Room 604, University of Texas at Arlington, 416 S. Yates St., Arlington, TX 76010

The Dallas IEEE Photonics Society is hosting a full-day symposium on computational electromagnetics based on popular open-source simulation tools. Interactive, hands-on sessions will introduce participants to setting up and launching simulations using the state-of-the-art finite-difference time-domain (FDTD) software package [MEEP](#), originally developed at MIT. A companion mode solver, [MPB](#) (frequency-domain planewave expansion), will also be reviewed. This suite of simulation tools supports a wide range of electromagnetic design and modeling.



Participants are required to bring their laptops and will be guided through several tutorial examples involving (1) preparing simulation models, (2) deploying them using high-performance computing (HPC) via Amazon Web Services (AWS) [Elastic Compute Cloud](#) (EC2), and (3) post-processing the results using [Octave](#). Examples will include solar light trapping in thin-film absorbers, spontaneous-emission rate and light-extraction efficiency of organic light-emitting diodes (OLEDs), and far-field diffraction of binary gratings. The instructor will be available for private consultation after the workshop to further assist participants with the simulation tools. This event is free and open to the public. Register via email to info@simpetuscloud.com by Monday November 14th.

WebEx Seminar, 12-1pm: [link](#) or phone US toll free 1.866.203.0920, meeting number 599 825 052



Instructor: [Ardavan Oskooi](#) is the Founder and CEO of [Simpetus](#), a San Francisco-based startup with a mission to propel simulations forward with open source and cloud computing. Ardavan received his Sc.D. from MIT where he worked with Professors Steven G. Johnson and John D. Joannopoulos (thesis: Computation & Design for Nanophotonics) to develop [MEEP](#). Ardavan has published 13 first-author articles in peer-reviewed journals and a book [Advances in FDTD Computational Electrodynamics: Photonics and Nanotechnology](#) with Professors Allen Taflove of Northwestern University and Steven G. Johnson. He has a masters in Computation for Design and Optimization from MIT and completed his undergraduate studies, with honors, in Engineering Science at the University of Toronto. Prior to launching Simpetus, Ardavan worked with Professors Susumu Noda at Kyoto University and Stephen R. Forrest at the University of Michigan on leveraging MEEP to push the frontier of optoelectronic device design.

Faculty Host: Prof. Robert Magnusson, Dept. of Electrical Eng., University of Texas at Arlington

Organizer: Dr. Alexander Umnov, Dallas IEEE Photonics Society & Corning Inc.