

Electromagnetic & Photonic Simulation

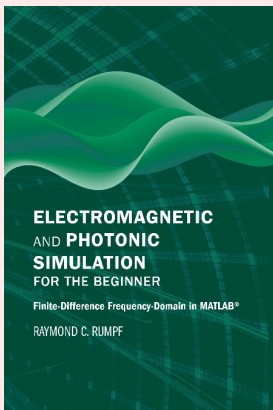
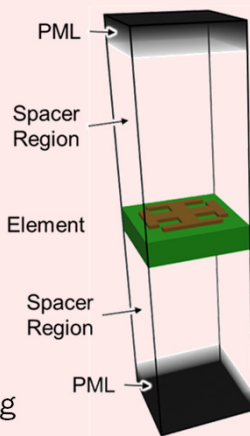


SUMMARY

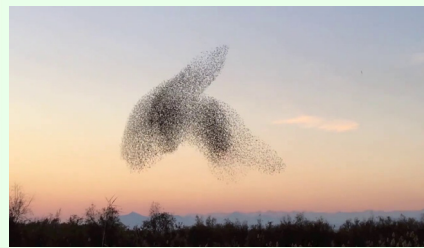
The EMLab is one of the strongest labs in the world for electromagnetic and photonic simulation, as well as scientific visualization. In addition to commercial software, such as Ansys HFSS, the EMLab maintains a comprehensive suite of custom simulation and optimization tools. The custom tools can often simulate devices orders of magnitude faster than commercial software and account for physics, such as bi-anisotropy, that is ignored by commercial software.

SIMULATION

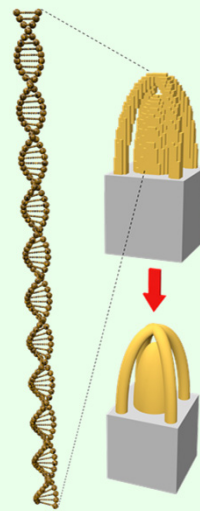
- FDTD
- FDFD
- RCWA
- PWEM
- TMM
- FEM
- MoL
- MoM
- SAM
- BPM
- Ray tracing



OPTIMIZATION

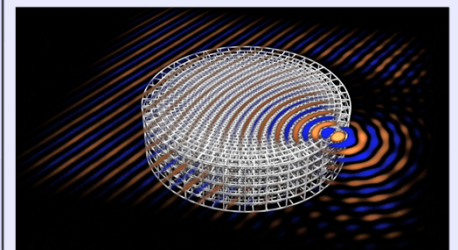
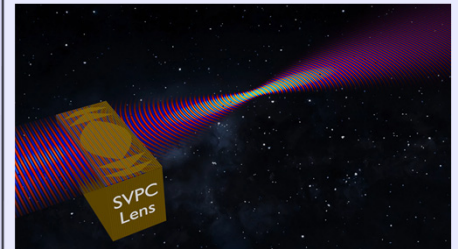
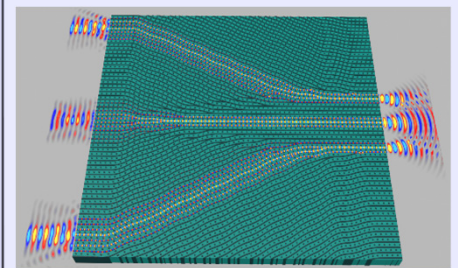


Particle Swarm Optimization

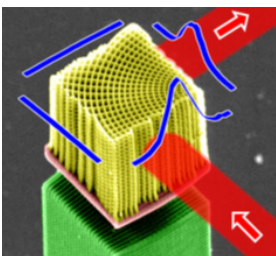


Genetic Algorithms

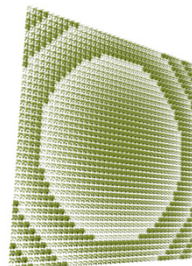
VISUALIZATION



APPLICATIONS



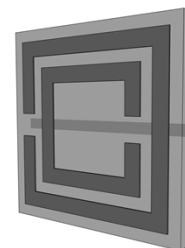
Photonic Crystals



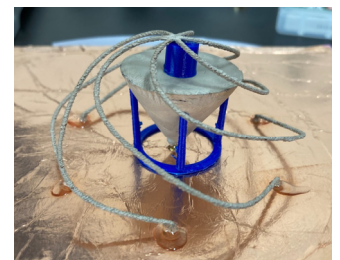
Metasurfaces



Conformal Arrays



Metamaterials



3D Antennas

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