Publications:

Benchmarking five computational methods for analyzing large photonic crystal membrane cavities
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Comparison of Five Computational Methods for Computing Q Factors in Photonic Crystal Membrane Cavities
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Comparison of Five Numerical Methods for Computing Quality Factors and Resonance Wavelengths in Photonic Crystal Membrane Cavities
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Modeling open nanophotonic systems using the Fourier modal method: Generalization to 3D Cartesian coordinates
Publication: Research - peer-review › Journal article – Annual report year: 2017

Modelling open nanophotonic structures using the Fourier modal method in infinite domains
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

A modal approach to light emission and propagation in coupled cavity waveguide systems
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Comparison of four computational methods for computing Q factors and resonance wavelengths in photonic crystal membrane cavities
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Open-geometry Fourier modal method: modeling nanophotonic structures in infinite domains
Publication: Research - peer-review › Journal article – Annual report year: 2016

Site-controlled quantum dots coupled to photonic crystal waveguides
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Spectral symmetry of Fano resonances in a waveguide coupled to a microcavity
Publication: Research - peer-review › Journal article – Annual report year: 2016

Design and simulations of highly efficient single-photon sources
Publication: Research - peer-review › Paper – Annual report year: 2015

Design of Slow and Fast Light Photonic Crystal Waveguides for Single-photon Emission Using a Bloch Mode Expansion Technique
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2015

Impact of slow-light enhancement on optical propagation in active semiconductor photonic crystal waveguides
Publication: Research - peer-review › Journal article – Annual report year: 2015

Investigations on the parity of Fano resonances in photonic crystals
Publication: Research - peer-review › Poster – Annual report year: 2015
Modeling and simulations of light emission and propagation in open nanophotonic systems
Publication: Research › Ph.D. thesis – Annual report year: 2016

Semi-analytical quasi-normal mode theory for the local density of states in coupled photonic crystal cavity-waveguide structures
Publication: Research › peer-review › Letter – Annual report year: 2015

A Bloch modal approach for engineering waveguide and cavity modes in two-dimensional photonic crystals
Publication: Research › peer-review › Article in proceedings – Annual report year: 2014

A Bloch mode expansion approach for analyzing quasi-normal modes in open nanophotonic structures
Publication: Research › peer-review › Article in proceedings – Annual report year: 2014

Calculation, normalization and perturbation of quasinormal modes in coupled cavity-waveguide systems
Publication: Research › peer-review › Journal article – Annual report year: 2014

Roundtrip matrix method for calculating the leaky resonant modes of open nanophotonic structures
Publication: Research › peer-review › Journal article – Annual report year: 2014

Scaling of the Surface Plasmon Resonance in Gold and Silver Dimers Probed by EELS
Publication: Research › peer-review › Journal article – Annual report year: 2014

Calibrating Au and Ag plasmonic rulers with EELS
Publication: Research › peer-review › Poster – Annual report year: 2013

Probing plasmon resonance’s dependence on gap size in silver dimers by EELS
Publication: Research › peer-review › Poster – Annual report year: 2013

Probing plasmon resonance’s dependence on gap size in silver dimers by EELS
Publication: Research › peer-review › Poster – Annual report year: 2013

Three-dimensional integral equation approach to light scattering, extinction cross sections, local density of states, and quasi-normal modes
Publication: Research › peer-review › Journal article – Annual report year: 2013

Electromagnetic Scattering in Micro- and Nanostructured Materials.
Publication: Research › peer-review › Report – Annual report year: 2012

Modeling of cavities using the analytic modal method and an open geometry formalism
Publication: Research › peer-review › Journal article – Annual report year: 2012

Multiple-scattering formalism beyond the quasistatic approximation: Analyzing resonances in plasmonic chains
Publication: Research › peer-review › Article in proceedings – Annual report year: 2012

Projects:
Advanced simulation tools for nanophotonic devices
Project: PhD

Activities:
2015 Progress In Electromagnetics Research Symposium
Activity: Talks and presentations › Conference presentations

Nye forskere og Ph.D.-Studerende
Activity: Talks and presentations › Conference presentations

Nanofotonik og fotoniske krystaller – Tryllekunster med lys
Activity: Talks and presentations › Conference presentations

META’14
Activity: Talks and presentations › Conference presentations

Nanofotonik og fotoniske krystaller – Tryllekunster med lys
Activity: Talks and presentations › Conference presentations

SPIE Photonics Europe Conference 2014
Activity: Talks and presentations › Conference presentations

Les Houches Summer School
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

International Physics Olympiad
Activity: Examinations and supervision › External examination

5th International Workshop on Theoretical and Computational Nano-Photonics
Activity: Talks and presentations › Conference presentations