Jakob Rosenkrantz de Lasson - DTU Orbit (17/11/2018)
de Lasson, Jakob Rosenkrantz

Research outputs:

Benchmarking five numerical simulation techniques for computing resonance wavelengths and quality factors in photonic crystal membrane line defect cavities
Research output: Research - peer-review › Journal article – Annual report year: 2018

Benchmarking state-of-the-art numerical simulation techniques for analyzing large photonic crystal membrane line defect cavities
Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

Benchmarking state-of-the-art optical simulation methods for analyzing large nanophotonic structures
Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

Which Computational Methods Are Good for Analyzing Large Photonic Crystal Membrane Cavities?
Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

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

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

Modeling open nanophotonic systems using the Fourier modal method: Generalization to 3D Cartesian coordinates
Häyrynen, T., Østerkryger, A. D., de Lasson, J. R. & Gregersen, N. 2017 In : Journal of the Optical Society of America A. 34, 9, p. 1632-1641
Research output: Research - peer-review › Journal article – Annual report year: 2017

Modelling open nanophotonic structures using the Fourier modal method in infinite domains
A modal approach to light emission and propagation in coupled cavity waveguide systems
Research output: 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
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Open-geometry Fourier modal method: modeling nanophotonic structures in infinite domains
Häyrynen, T., de Lasson, J. R. & Gregersen, N. 2016 In : Journal of the Optical Society of America A. 33, 7, p. 1298-1306
Research output: Research - peer-review › Journal article – Annual report year: 2016

Site-controlled quantum dots coupled to photonic crystal waveguides
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2016

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

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

Investigations on the parity of Fano resonances in photonic crystals
Research output: Research - peer-review › Poster – Annual report year: 2015

Modeling and simulations of light emission and propagation in open nanophotonic systems

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

A Bloch modal approach for engineering waveguide and cavity modes in two-dimensional photonic crystals
A Bloch mode expansion approach for analyzing quasi-normal modes in open nanophotonic structures

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

Calculation, normalization and perturbation of quasinormal modes in coupled cavity-waveguide systems

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

Roundtrip matrix method for calculating the leaky resonant modes of open nanophotonic structures

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

Scaling of the Surface Plasmon Resonance in Gold and Silver Dimers Probed by EELS

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

Calibrating Au and Ag plasmonic rulers with EELS

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

Probing plasmon resonance’s dependence on gap size in silver dimers by EELS

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

Probing plasmon resonance’s dependence on gap size in silver dimers by EELS

Probing plasmon resonance’s dependence on gap size in silver dimers by EELS
Research output: 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

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

Electromagnetic Scattering in Micro- and Nanostructured Materials.

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

Modeling of cavities using the analytic modal method and an open geometry formalism

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

Multiple-scattering formalism beyond the quasistatic approximation: Analyzing resonances in plasmonic chains

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

Projects:
Advanced simulation tools for nanophotonic devices
de Lasson, J. R., Gregersen, N., Kristensen, P. T., Mørk, J., Lavrinenko, A., Hughes, S., Søndergaard, T. & Hughes, S.
Institut stipendie (DTU) Samf.
01/10/2012 → 20/01/2016
Project: PhD

Activities:

Nye forskere og Ph.D.-Studerende
de Lasson, J. R. (Invited speaker)
Nov 2015
Activity: Talks and presentations › Conference presentations

Nanofotonik og fotoniske krystaller – Tryllekunster med lys
de Lasson, J. R. (Invited speaker)
Apr 2015
Activity: Talks and presentations › Conference presentations

2015 Progress in Electromagnetics Research Symposium
de Lasson, J. R. (Speaker)
2015
Activity: Talks and presentations › Conference presentations

META’14
de Lasson, J. R. (Speaker)
May 2014
Activity: Talks and presentations › Conference presentations

Nanofotonik og fotoniske krystaller – Tryllekunster med lys
de Lasson, J. R. (Invited speaker)
Apr 2014
Activity: Talks and presentations › Conference presentations

SPIE Photonics Europe Conference 2014
de Lasson, J. R. (Speaker)
Apr 2014
Activity: Talks and presentations › Conference presentations

Les Houches Summer School
de Lasson, J. R. (Participant)
Aug 2013 → …
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

International Physics Olympiad
de Lasson, J. R. (External examiner)
Jul 2013
Activity: Examinations and supervision › External examination

5th International Workshop on Theoretical and Computational Nano-Photonics
de Lasson, J. R. (Speaker)
Oct 2012
Activity: Talks and presentations › Conference presentations