Jakob Rosenkrantz de Lasson - DTU Orbit (25/05/2018)

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Department of Photonics Engineering - Postdoc, Former

Publications:

Benchmarking five numerical simulation techniques for computing resonance wavelengths and quality factors in photonic crystal membrane line defect cavities


Publication: 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


Publication: Research - peer-review › Article in proceedings – Annual report year: 2018

Benchmarking state-of-the-art optical simulation methods for analyzing large nanophotonic structures


Publication: Research - peer-review › Article in proceedings – Annual report year: 2018

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

Modelling 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

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
Häyrynen, T., de Lasson, J. R. & Gregersen, N. 2016 In : Journal of the Optical Society of America A. 33, 7, p. 1298-1306
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
de Lasson, J. R., Rigal, B., Kapon, E., Mørk, J. & Gregersen, N. 2015
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
Østerkryger, A. D., de Lasson, J. R., Yu, Y., Mørk, J. & Gregersen, N. 2015
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

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
de Lasson, J. R., Gregersen, N., Kristensen, P. T., Mørk, J., Lavrinenko, A., Hughes, S. & Søndergaard, T.
Activities:

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

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

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