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

**High quality factor GaAs microcavity with buried bullseye defects**
Research output: Research - peer-review › Journal article – 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

**Interference-exact radiative transfer equation**
Research output: Research - peer-review › Journal article – Annual report year: 2017

**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

**Enhanced Photon Extraction from a Nanowire Quantum Dot Using a Bottom-Up Photonic Shell**
Research output: Research - peer-review › Journal article – Annual report year: 2017

**Generalized noise terms for the quantized fluctuational electrodynamics: Paper**
Research output: Research - peer-review › Journal article – Annual report year: 2017

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

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

**Photon mass drag and the momentum of light in a medium**
Research output: Research - peer-review › Journal article – Annual report year: 2017
Quantized fluctuational electrodynamics for three-dimensional plasmonic structures
Research output: Research - peer-review › Journal article – Annual report year: 2017

Modeling cavities exhibiting strong lateral confinement using open geometry Fourier modal method
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

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

Photon momentum and optical forces in cavities
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Quantum description of light propagation in generalized media
Research output: Research - peer-review › Journal article – Annual report year: 2016

Commutation-relation-preserving ladder operators for propagating optical fields in nonuniform lossy media
Research output: Research - peer-review › Journal article – Annual report year: 2015

Activities:

Modelling and design of cavities exhibiting high Q and strong mode confinement
Activity: Talks and presentations › Conference presentations