Dara McCutcheon - DTU Orbit (02/03/2018)

McCutcheon, Dara

daramc@fotonik.dtu.dk

Department of Photonics Engineering - Postdoc, Former

Publications:

A broadband tapered nanocavity for efficient nonclassical light emission
Gregersen, N., McCutcheon, D., Mørk, J., Gérard, J-M. & Claudon, J. 2016 In : Optics Express. 24, 18, p. 20904-24
Publication: Research - peer-review › Journal article – Annual report year: 2016

Broadband Purcell enhancement in highly efficient photonic nanowire-based single-photon sources
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Fundamental Limits to Coherent Scattering and Photon Coalescence from Solid-State Quantum Emitters [arXiv]
Publication: Research - peer-review › Journal article – Annual report year: 2016

Modelling exciton–phonon interactions in optically driven quantum dots: Topical Review
Nazir, A. & McCutcheon, D. 2016 In : Journal of Physics: Condensed Matter. 28, 10, 26 p., 103002
Publication: Research - peer-review › Journal article – Annual report year: 2016

Optical signatures of non-Markovian behavior in open quantum systems
McCutcheon, D. 2016 In : Physical Review A. 93, 2, 7 p., 022119
Publication: Research - peer-review › Journal article – Annual report year: 2016

Few-photon Non-linearities in Nanophotonic Devices for Quantum Information Technology
Publication: Research › Ph.D. thesis – Annual report year: 2015

Highly indistinguishable photons from a QD-microcavity with a large Purcell-factor
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Observation of resonance fluorescence and the Mollow triplet from a coherently driven site-controlled quantum dot
Publication: Research - peer-review › Journal article – Annual report year: 2015

Scattering of two photons on a quantum emitter in a one-dimensional waveguide: exact dynamics and induced correlations
Publication: Research - peer-review › Journal article – Annual report year: 2015

Strong nonlinearity-induced correlations for counterpropagating photons scattering on a two-level emitter
Publication: Research - peer-review › Journal article – Annual report year: 2015
Publication: Research - peer-review › Journal article – Annual report year: 2015

Two-photon interference from a quantum dot-microcavity: Persistent pure-dephasing and suppression of time-jitter
Publication: Research - peer-review › Paper – Annual report year: 2015

Error Distributions on Large Entangled States with Non-Markovian Dynamics
McCutcheon, D., Lindner, N. H. & Rudolph, T. 2014 In : PHYSICAL REVIEW LETTERS. 113, 26
Publication: Research - peer-review › Journal article – Annual report year: 2014

Indistinguishable photons from a quantum dot–cavity system: competing roles of timing-jitter and pure-dephasing
Publication: Research - peer-review › Poster – Annual report year: 2014

Indistinguishable single photons generated by quantum dots in adiabatic micropillar cavities
Publication: Research - peer-review › Poster – Annual report year: 2014

Temperature-Dependent Mollow Triplet Spectra from a Single Quantum Dot: Rabi Frequency Renormalization and Sideband Linewidth Sensitivity
Publication: Research - peer-review › Journal article – Annual report year: 2014

Two-photon interference from a quantum dot-microcavity: Persistent pure-dephasing and suppression of time-jitter
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2014

Projects:

Nysteen, A., Mørk, J., Kristensen, P. T., McCutcheon, D., Nielsen, P. K., Wubs, M., Busch, K. & Fiore, A. 15/02/2012 → 18/06/2015
Project: PhD