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Ph.D. Student in Applied Physics, admitted Autumn 2019

Publications

PUBLICATIONS

- **Dynamic resonance fluorescence in solid-state cavity quantum electrodynamics** *NATURE PHOTONICS*
Liu, S., Gustin, C., Liu, H., Li, X., Yu, Y., Ni, H., Niu, Z., Hughes, S., Wang, X., Liu, J.
2024
- **Gauge-invariant theory of truncated quantum light-matter interactions in arbitrary media** *PHYSICAL REVIEW A*
Gustin, C., Franke, S., Hughes, S.
2023; 107 (1)
- **Gauge-independent emission spectra and quantum correlations in the ultrastrong coupling regime of open system cavity-QED (vol 11, pg 1573, 2022)** *NANOPHOTONICS*
Salmon, W., Gustin, C., Settineri, A., Di Stefano, O., Zueco, D., Savasta, S., Nori, F., Hughes, S.
2023
- **All-Optical Tuning of Indistinguishable Single Photons Generated in Three-Level Quantum Systems.** *Nano letters*
Dusanowski, L., Gustin, C., Hughes, S., Schneider, C., Hofling, S.
2022
- **Regimes of cavity QED under incoherent excitation: From weak to deep strong coupling** *PHYSICAL REVIEW RESEARCH*
Mercurio, A., Macri, V., Gustin, C., Hughes, S., Savasta, S., Nori, F.
2022; 4 (2)
- **Using the Autler-Townes and ac Stark effects to optically tune the frequency of indistinguishable single photons from an on-demand source** *PHYSICAL REVIEW RESEARCH*
Gustin, C., Dusanowski, L., Hofling, S., Hughes, S.
2022; 4 (2)
- **Gauge-independent emission spectra and quantum correlations in the ultrastrong coupling regime of open system cavity-QED** *NANOPHOTONICS*
Salmon, W., Gustin, C., Settineri, A., Di Stefano, O., Zueco, D., Savasta, S., Nori, F., Hughes, S.
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- **Nonlinear quantum behavior of ultrashort-pulse optical parametric oscillators** *PHYSICAL REVIEW A*
Onodera, T., Ng, E., Gustin, C., Lorch, N., Yamamura, A., Hamerly, R., McMahon, P. L., Marandi, A., Mabuchi, H.
2022; 105 (3)
- **High-resolution spectroscopy of a quantum dot driven bichromatically by two strong coherent fields** *PHYSICAL REVIEW RESEARCH*
Gustin, C., Hanschke, L., Boos, K., Mueller, J. A., Kremser, M., Finley, J. J., Hughes, S., Mueller, K.
2021; 3 (1)