

Nanophotonics

Tue, 2016-11-15 17:26 - [Rinaldo Trotta](#) [1] **Website:**
<http://www.jku.at/hfp/content/e184015/e199854/e192995> [2]

Research Type: Experiment

- Quantum Optics
- Quantum Communication
- Nanophotonics
- Quantum Dots
- Single and Entangled Photons from semiconductor-based devices
- Quantum-light-emitting diodes
- Artificial-natural atomic interfaces

Relevant Publications

R. Trotta, et al., "Wavelength-tunable sources of entangled photons interfaced with atomic vapors" *Nature Comm.* 7, 10375 (2016).

J. Zhang, et al., "High yield and ultrafast source of electrically triggered entangled-photon pairs based on strain-tunable quantum dots" *Nature Comm.* 6, 10067 (2015)

R. Trotta, et al., "Energy-tunable sources of entangled photons: a viable concept for solid-state quantum relays" *Physical Review Letters* 114, 150502 (2015)

R. Trotta, et al., "Highly entangled photons from hybrid piezoelectric-semiconductor quantum dot devices" *Nano Letters* 14, 3439 (2014)

S. Birindelli, et al., "Single Photons on Demand from Novel Site-Controlled GaAsN/GaAsN:H Quantum Dots" *Nano Letters*, 14, 1275 (2014)

Z. Jiayang, et al., "A Nanomembrane-Based Wavelength-Tunable High-Speed Single-Photon-Emitting Diode" *Nano Letters* 13, 5808 (2013)

R. Trotta, et al. "Universal recovery of the energy-level degeneracy of bright excitons in InGaAs quantum dots without a structure symmetry" *Physical Review Letters* 109, 147401 (2012)

R. Trotta, et al., "Nanomembrane quantum-light emitting-diode integrated onto piezoelectric actuators" *Advanced Materials* 24, 2668 (2012)

Leader: Rinaldo Trotta

Location

Johannes Kepler University Altenbergerstr. 69
Linz A-4040 Austria
48° 20' 15.216" N, 14° 19' 18.9228" E

- [Quantum Communication](#) [3]
- [Quantum Engineering](#) [4]
- [Other](#) [5]

Source URL: <http://quope.eu/db/groups/nanophotonics>

Links:

- [1] <http://quope.eu/users/rinaldotrotta>
- [2] <http://www.jku.at/hfp/content/e184015/e199854/e192995>
- [3] <http://quope.eu/category/vi/quantum-communication>
- [4] <http://quope.eu/category/virtual-facility/quantum-engineering>
- [5] <http://quope.eu/category/projects/other>