

Stanford

Raphael Van Laer

Postdoctoral Research Fellow, Applied Physics

Bio

PROFESSIONAL EDUCATION

- Bachelor of Science, Universiteit Gent (2009)
- Master of Science, Universiteit Gent (2011)
- Doctor of Philosophy, Universiteit Gent (2016)

STANFORD ADVISORS

- Amir Safavi-Naeini, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

- **A silicon-organic hybrid platform for quantum microwave-to-optical transduction** *QUANTUM SCIENCE AND TECHNOLOGY*
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- **Time-of-flight imaging based on resonant photoelastic modulation (vol 58, pg 2235, 2019)** *APPLIED OPTICS*
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- **Efficient bidirectional piezo-optomechanical transduction between microwave and optical frequency.** *Nature communications*
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- **Cryogenic packaging of an optomechanical crystal** *OPTICS EXPRESS*
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- **Lithium niobate piezo-optomechanical crystals** *OPTICA*
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- **Resolving the energy levels of a nanomechanical oscillator.** *Nature*
Arrangoiz-Arriola, P., Wollack, E. A., Wang, Z., Pechal, M., Jiang, W., McKenna, T. P., Witmer, J. D., Van Laer, R., Safavi-Naeini, A. H.
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- **Controlling phonons and photons at the wavelength scale: integrated photonics meets integrated photonics (vol 6, pg 213, 2019)** *OPTICA*
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- **Controlling phonons and photons at the wavelength scale: integrated photonics meets integrated photonics** *OPTICA*

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- **Microwave Quantum Acoustic Processor**

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IEEE.2019: 255–58

- **Electro-Optics with Gigahertz Phonons in Silicon Photonics**

Van Laer, R., Patel, R. N., Witmer, J. D., McKenna, T. P., Safavi-Naeini, A. H., IEEE
IEEE.2019

- **High-quality Lithium Niobate Optomechanical Crystal**

Jiang, W., Patel, R. N., Mayor, F. M., McKenna, T. P., Arrangoiz-Arriola, P., Sarabalis, C. J., Van Laer, R., Safavi-Naeini, A. H., IEEE
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- **Optomechanical antennas for on-chip beam-steering** *OPTICS EXPRESS*

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- **Enabling Strong Coupling in Nanoscale Silicon Optomechanical Waveguides**

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