Raphaël Van Laer

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Short curriculum vitæ

# **—** Research experience and education

- 2021-... Assistant Professor, Chalmers University of Technology, Sweden Starting a research team in photonics and quantum technologies at the Department of Microtechnology and Nanoscience (MC2).
- 2016–2021 **Postdoctoral Fellow**, *Stanford University*, USA Research on thin-film lithium niobate, quantum optics, heterogeneous integration, and superconducting circuits in the group of Prof. Amir Safavi-Naeini, Ginzton laboratory, Department of Applied Physics.
  - 03/2019 Scientific Consultant, PsiQuantum Corp., USA NDA.
- 2012–2016 PhD in Engineering: Photonics, Ghent University imec, Belgium Research on silicon photonics, nonlinear optics, Brillouin scattering and optomechanics, Photonics Research Group, Department of Information Technology. PhD thesis titled Light-Sound Interaction in Nanoscale Silicon Waveguides. Advisors: Prof. Dries Van Thourhout and Prof. Roel Baets.
- Fall 2011 Visiting scholar, Cornell University, USA
  Research on quantum and nonlinear photonics in the group of Prof. Alexander Gaeta, School of Applied and Engineering Physics.
- 2006–2011 Bachelor and Master of Science in Engineering Physics, *Ghent University*, Belgium

Obtained with greatest distinction. Master thesis on dyadic quantum computing advised by Prof. Alexis De Vos. Financially supported by the Flemish government in 2007.

Fall 2009 Exchange Term in Engineering Physics, Royal Institute of Technology (KTH), Sweden

Erasmus program. Project on Bell's inequalities.

Honors and grants

- 2022 SSF Future Research Leader Grant Awarded by the Swedish Foundation for Strategic Research.
- 2021 ERC Starting Grant

Awarded by the European Research Council.

2021 Excellence program - Startup Grant

Awarded by the Wallenberg Centre for Quantum Technology to launch a new laboratory at Chalmers.

- 2018 US National Science Foundation grant NSF – 1808100 on optomechanical antennas. Provided intellectual input on proposal (PI: Prof. Amir Safavi-Naeini).
- 2016 **Outgoing Marie Skłodowska-Curie grant** Awarded by the Flemish Agency for Innovation by Science and Technology ([PEGASUS]<sup>2</sup>) and Horizon 2020 of the European Union.
- 2016 VOCATIO grant

Awarded by the VOCATIO foundation to develop phononic circuits at Stanford.

### 2015 Optics & Photonics "Optics in 2015"

Named by the Optical Society of America for discovery of photon-phonon interaction in silicon nanowire, "among the most exciting research to emerge in 2015".

#### 2015 **Graduate student prize** Awarded by the IEEE Photonics Society for research excellence.

2014 **Best poster prize** Awarded by the IEEE Photonics Society at IPC 2014.

### 2012 PhD fellowship

Awarded by the Flemish Agency for Innovation by Science and Technology (IWT-FWO) to conduct research on optomechanical nonlinearities.

### 2011 BAEF fellowship

Awarded by the Belgian American Educational Foundation for a visiting scholarship at Cornell University.

### Languages

Dutch Native English Advanced French Intermediate Swedish Intermediate

# Scientific results

Full publication list by Google Scholar.