Applications of laser-related technologies generally require close control over a large set of physical performance, such as the power, wavelength and polarization of the emitted light, or the modulation capabilities, the spectral purity and tunability of the device. Deployment of these technologies out of the lab also involves studies of their costs, packaging and reliability. In this talk, specific examples will be discussed where material systems with optimal properties were combined to demonstrate optoelectronic devices with unprecedented performance or exhibiting new physical phenomena.

**Biography:** Nicolas Volet holds a PhD in laser physics from EPFL (Switzerland), after which he worked in Santa Barbara (CA, USA), first as a postdoc in silicon photonics at UCSB and later setting up an R&D center for a telecom company. He now heads a research group of Integrated Photonics at Aarhus University (Denmark) and is a Board Member of the Danish Optical Society (DOPS). In 2020, he co-founded UV Medico, a company based in Aarhus with the mission to fight the spread of infectious diseases with human-safe UV light.

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