



Integrated nanooptics: From single photon sources to detectors

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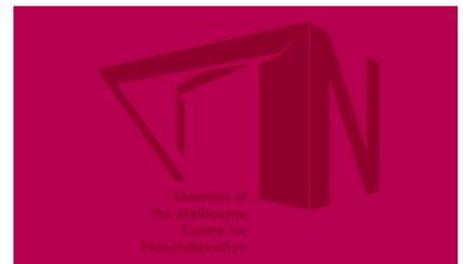
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Melbourne Centre for Nanofabrication Boardroom

151 Wellington Road, Clayton, 3168

Zoom link: [click here](#)

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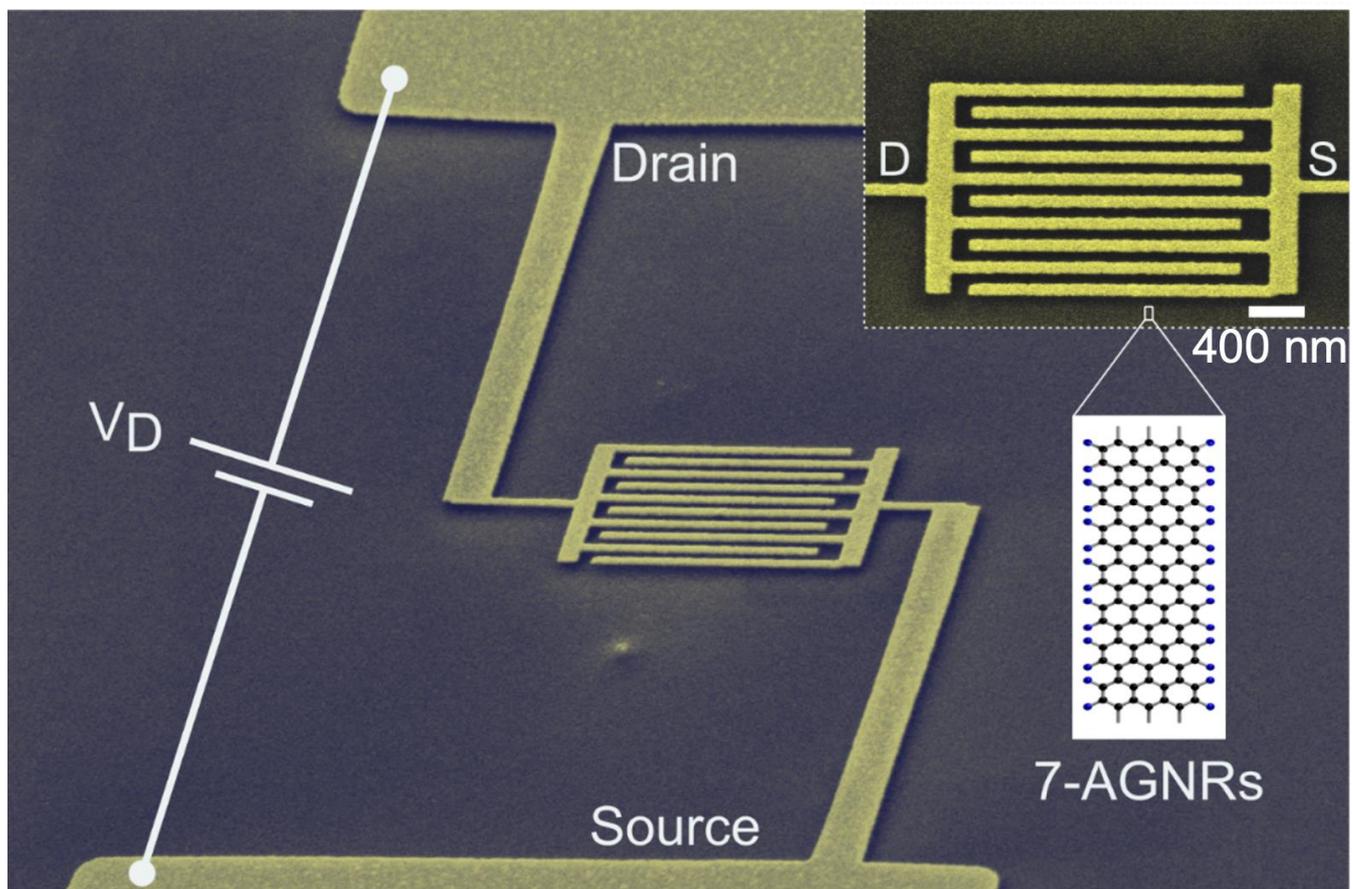
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Abstract:

An outstanding challenge in the field of nano optics is to develop scalable miniature circuits that integrate single-photon sources, linear optical components, and detectors on a chip. Plasmonics may play a key role in this development. In my talk I will present our work on using plasmonics to engineer the properties of emitters such as semiconductor quantum dots and organic molecules and our recent results on nanoscale photodetection.



Prof Klas Lindfors studied technical physics at Helsinki University of Technology (currently Aalto University) in Finland from where he obtained his PhD on optical spectroscopy and microscopy of plasmonic nanostructures in 2009. He was a post-doctoral fellow at the Max-Planck Institute for Solid-State Research and University of Stuttgart 2010-2013. Since 2013 he is professor and head of the Nano-optics Group at the University of Cologne. His research focuses on hybrid nanostructures combining plasmonic nanostructures with organic and inorganic nanostructures to probe light-matter interaction and to develop nanoscale optoelectronic devices.