

Physikalisches

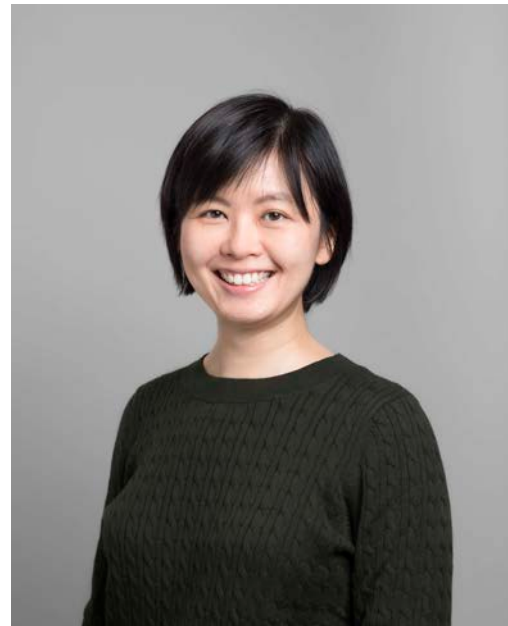
Donnerstag

25. April 2019 17:15 Uhr

Gustav-Mie-Hörsaal

Snacks und Getränke im Anschluss

Prof. Dr. Joyce Poon

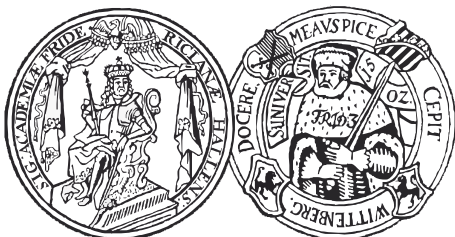


Director of the Max Planck Institute of Microstructure Physics, Halle
Professor of Electrical and Computer Engineering at University of Toronto, and h. Professor at the Faculty of Electrical Engineering and Computer Science at the Technical University of Berlin.

From Optical Communications to the Brain: Integrated 3D Silicon Photonics

Foundry-manufactured, monolithically integrated multilayer silicon nitride-on-silicon photonic platforms are suitable for large-scale photonic circuits. These photonic platforms contain several waveguide layers, and light is routed amongst the layers to create 3D photonic devices and circuits. We have realized a suite of devices in these platforms, including ultra-low-loss waveguide crossings, multi-layer grating couplers, and efficient modulators. These advancements, which were initially driven by telecommunications, are leading to neurophotonic implants for brain activity mapping.

Kolloquium



Martin-Luther-Universität
Institut für Physik



Max-Planck-Institut für
Mikrostrukturphysik



Fraunhofer-Institut für Mikrostruktur
von Werkstoffen und Systemen