Silicon and Diamond Photonics 2019

Event - Silicon and Diamond Photonics 2019 ↻

Title	Silicon and Diamond Photonics 2019
When	Do, 21. März 2019 - Fr, 22. März 2019

Description

Silicon and Diamond Photonics 2019 **Silicon Photonics** Silicon photonics is the modulation, processing detection and generation of light on a CMOS compatible platform. Thus, silicon photonic chips can cost-effectively meet theever increasingly data and bandwidth demands of a worldwide internet, growing with an annual rate of 20-30%. According to a 2018 report*, the silicon photonics market, today mainly driven by data center demands but with numerous other applications as well, is at the very beginning of massive deployment. Due to the CMOS compatibility, a co-integration of optical and electrical signal processing on one single platform enables ultra-high data rate transmitter mod- ules for data center, or even on chip communications, Tera-samples per second digital to-analog and analog-to-digital converters, arbitrary waveform generators and many more.On the device level, the strong confinement of the waves in nano-waveguides shows very interesting properties, which enable acoustic lasers, a strong interaction between light and sound waves, integrated frequency combs, optical signal processing, integrated sensors and many other fascinating applications. Leading experts in the field from all over the world will give captivating talks about the state of the art and latest developments in this exciting field. **Diamond Photonics** Diamond photonics in general is the physical science of photon generation, detection, and manipulation through emission, transmission, modulation, signal processing, switching, amplification, and sensing based on diamond or on nano-diamond. Diamond possesses remarkable physical and chemical properties, high mechanical hardness, large Young´s module and high thermal conductivity. In addition to that, it enters more and more also the quantum optics stage. Diamond has a wide transparency window from the ultraviolet to the infrared spectral range, has a high refractive index and it may contain a variety of defect centres. Therefore, diamond is a very interesting and promising material for many applications, from which the fields of quantum information, quantum optics and quantum radiometry belong to the most exciting ones. In this workshop, we will focus on the fabrication, characterization and application of colour centres in (nano-) diamond for the above mentioned applications. Top level presentations by outstanding experts on this field will begiven on the-state-of-the-art and recent developments.

Please learn more about this event by following link:

http://photonicnet-events.de/silicon-and-diamond-photonics/

Venue - Braunschweig

Location	Braunschweig
County	Braunschweig
Country	DE