

## **Silicon Photonics**

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### **Intended audience**

The course targets members from academia and industry who want to get a comprehensive review of current state of the art in silicon photonics and get insight in its advantages and challenges. It is intended for researchers with little or no background in silicon photonics as well as those with a more specialist view who want to get a broader understanding of the emerging developments in the field. The course in particular could benefit those wanting to get insight in the question “is silicon photonics the solution for my problem ?”

### **Learning benefits**

- Understand why silicon photonics forms a promising platform for realizing densely integrated photonic integrated circuits.
- Understand the operation of basic (splitters, filters, couplers) and more advanced (detectors, modulators, lasers) silicon photonics devices
- Understand the main challenges still to be resolved
- Get insight in the different approaches to combine silicon photonics with electronics
- Get insight in the fabrication technology and in possibilities for getting processed devices in a cost-effective way, e.g. through the epixfab multiproject wafer service
- Understand for what type of applications silicon photonics may form a suitable technology platform