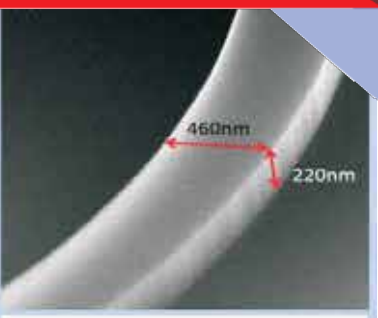
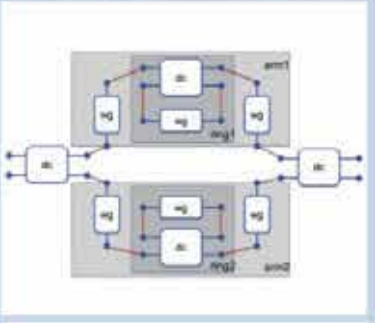
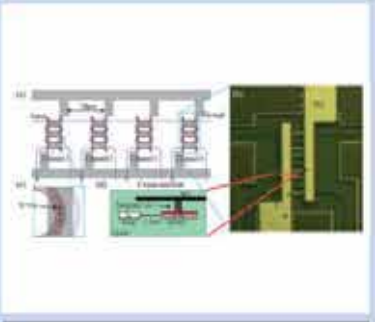
POLITECNICO DI TORINO

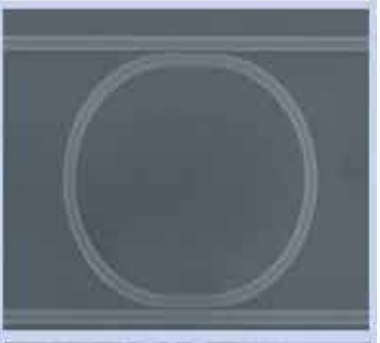
January 11, 2018 10.00 - 13.00
Room 7B, Politecnico di Torino
C.so Duca degli Abruzzi 24, Torino

Seminar on Integrated Photonics Design









In the framework of the cycle of Seminars on Photonics organized by the Interdepartmental Center PhotoNext, the Microwaves and Optoelectronics Group proposes a seminar focused on **silicon photonics**, a field that made significant advances over the last decades. During this seminar, **Dr. P. Wahl** from Luceda Photonics (www.lucedaphotonics.com) will introduce you to the world of integrated photonics design.

PART I: introduction

The seminar will start with an introduction to the **integrated photonics ecosystem** covering the most important areas: integrated photonics market, material platforms and applications.

PART II: design

Then we will dive into the **design methodologies** themselves covering layout, simulation and verification. Attendees will learn methods needed for the simulation of components used in datacom and sensing. In addition, we will introduce the techniques used for **optical circuit simulation** and will discuss the similarities and differences of a photonic design flow with the design flow used in analog electronics design.

PART III: case studies

Finally, we will elaborate on the **organization of design teams** themselves. Almost every design team clearly has the wish to become more efficient, and maintain its knowledge across the team and over the time. We will discover that small changes to a design flow (technical or nontechnical) can be surprisingly inexpensive to implement and give you and your team a substantial boost. We will share insights accumulated while working with many design teams over the world that can make photonic design work more efficient and fun.

Pierre Wahl co-founded Luceda Photonics in 2014 where he is in charge of sales, support and training operations. At Luceda, he trains and supports R&D teams of major corporations, research institutes, foundries and universities in China, North America and Europe. He completed a PhD in opto-electronics at the Free University of Brussels and Stanford University on ultra-low energy optical interconnects in 2014 and obtained a master degree in photonics from the University of Gent and the Free University of Brussels in 2010.

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