

COURSE PROGRAM

Day 1: Monday, 20 March 2023

Light Lunch

Welcome

Prof. Roel Baets

Chair of ePIXfab, Prof. at Ghent University-imec, Belgium

Tutorial: Introduction to Silicon Nitride PICs

Dr. Chris Roeloffzen

LioniX International, the Netherlands

Topical Lecture: Different silicon nitride flavors (LPCVD, PECVD, other)

Dr. Joaquin Faneca

IMB-CNM, Spain

Topical Lecture: Different waveguide types and associated fiber-chip coupling methods

Dr. Camiel Op de Beeck

LIGENTEC, Switzerland

COFEE BREAK

Topical Lecture: Passive photonic functions in silicon nitride PICs

Prof. Pascual Muñoz

Universitat Politècnica de València, Spain

Topical Lecture: Challenges and opportunities of large-scale integration in SiN Integrated Photonics

Dr. Quentin Wilmart

CEA-Leti, France

Topical Lecture: Integration of modulators – the options

Dr. Ruud Oldenbeuving

Imec, the Netherlands

Topical Lecture: Integration of light sources – the options

Dr. Douwe Geuzebroek

LioniX International, the Netherlands

Apéritif

Day 2: Tuesday, 21 March 2023

Tutorial: Overview of the current state-of-the-art

Prof. Roel Baets and Jeremy Witzens

Ghent University – imec, RWTH Aachen, Germany

Topical Lecture: Silicon Nitride Integrated Photonics Fabrication Platforms

Dr. Abdul Rahim

ePIXfab – Ghent University (Belgium)

COFFEE BREAK

Use Case: Nonlinear optical functions enabled by SiN PICs

Prof. Bart Kuyken

Ghent University – imec

Use Case: Quantum signal Processes enabled by SiN Integrated Photonics

Dr. Jörn Epping

Quix, the Netherlands

Use Case: Microwave Photonics and Optical Communication

Prof. David Marpaung

University of Twente, the Netherlands

Use Case: Ultra-sensitive Diagnostic Platform by using SiN PICs

Dr. Peter Harmsma

TNO, the Netherlands

STANDING LUNCH

Closing remarks at the end of the course

Introduction of PHIX and LioniX International facilities and services