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Advanced R&D at ST Microelectronics on Silicon Photonics for Emerging Applications

Dr. Antonio Fincato- ST Microelectronics

Monday 10 June 2024,

Sala Maxwell, DET, 5th Floor

15.00– 16:15 AM Seminar

16.15-17.00 Coffee break and informal discussion

Sensors

Components

Abstract: Silicon Photonics has been developed at ST Microelectronics, leading to the PIC25G and PIC50G technologies. Initially, this technology was mainly aimed at supporting communication in data centers, but recently there has been growing interest in new types of applications. After a description of the 300 mm Silicon Photonics platform, some applications such as transceivers for Datacom, LiDAR, integrated optical gyroscope, biosensors, and non-classical implementation of light for quantum cryptography will be shown.

During the seminar, some opportunities in ST for Master Degree and/or Doctoral theses on these topics will be proposed.

Dr. Antonio Fincato has been working in the field of Photonics for over 30 years, developing devices based on various integrated technologies. In 2000, he joined STMicroelectronics, where he is responsible for the design of advanced photonic components. In the last 12 years, he has been working in the field of Silicon Photonics, and his interest concerns applications in the telecommunications and sensor sectors.

For further information: mariangela.gioannini@polito.it