

Press Release

June 20th, 2018

PhD thesis awarded

Costanza Lucia Manganelli received award by Photonics Society Italian Chapter

Lecce. The award for the Best Doctoral Thesis in Optoelectronics, awarded by the IEEE (Institute of Electrical and Electronics Engineers) Photonics Society Italian Chapter goes to IHP scientist Costanza Lucia Manganelli. Her work “Investigation and Modeling of Novel Silicon based Integrated Optics” convinced the committee. At the symposium “Fotonica 2018”, where she also presented her activity on “Efficient On-Chip Tunable Selective Switches for Optical Interconnections” developed at IHP, she received the certificate by the Chair Dr. Silvia Maria Pietralunga.

“This award is a confirmation of my previous research,” says Dr. Costanza Lucia Manganelli. She successfully defended her PhD in Photonic Technologies at the “Scuola Superiore Sant’Anna” in Pisa under the guidance of Fabrizio Di Pasquale. The evaluation committee judged her work to be awarded for her scientific contribution to the analysis and development of innovative materials and approaches for optoelectronic applications.

Since November 2017, Dr. Costanza Lucia Manganelli has been supporting the Materials Research Department at IHP – Innovations for High Performance Microelectronics. As a one-year Leibniz-DAAD grant, she will carry out in close collaboration with IHP scientists state-of-the-art theoretical investigations on the potential use of strained Germanium microstructures for future Si CMOS compatible photonic applications. Under the guidance of Prof. Giovanni Capellini, the unique selling point of the project is to correlate predictive theoretical insights with the performances of material and device realized in IHP’s cleanroom facility. Her calculations should show how the modification induced on the germanium lattice can impact the optoelectronic properties of the material.



Dr. Costanza Lucia Manganelli (left) received the certificate by Dr. Silvia Maria Pietralunga

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About IHP:

The IHP is an institute of the Leibniz Association and conducts research and development of silicon-based systems and ultrahigh frequency circuits and technologies including new materials. It develops innovative solutions for application areas such as wireless and broadband communication, security, medical technology, industry 4.0, automotive industry, and aerospace. The IHP employs approximately 300 people. It operates a pilot line for technological developments and the preparation of high-speed circuits with 0.13/0.25 µm BiCMOS technologies, located in a 1000 m² class 1 cleanroom.

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