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Manufacturing and performance of quantum cascade lasers for industrial applications

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In this talk, an overview of current performance and future challenges in quantum cascade laser manufactured for industrial applications will be presented. Among the main topics there will be high power lasers (1W and above) at mid-wave and long-wave infrared wavelengths, and low-power consumption distributed-feedback lasers for high precision spectroscopy. How the laser performances and the ruggedness, reliability, and volume manufacturability are enabling real-world applications in a variety of environments, from the industrial, to defense and security, and to the bio-medical fields will be shown in this presentation.

Biography

Mariano Troccoli graduated magna cum laude and received his PhD from the University of Bari, Italy. He subsequently joined Bell Labs and then Harvard University. In 2006, he co-founded Argos Tech in Santa Clara (CA), where he was Director of Research. Currently, he is Director of Product Development at AdTech, in charge of new products and business development for mid-infrared QCLs. He is co-author of 50 publications and 10 patents. He was elected fellow of the OSA and senior member of IEEE and SPIE, received the "Young Investigator Award" of the EMRS and was nominated for the "Prism Awards" 2013.

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