



SiGe Design of Nonlinear Integrated Circuits for Microwave and Millimeter Wave Applications

Guest Editor:

Prof. Dr. Leonardo Pantoli

Department of Industrial and Information Engineering and Economics, Università degli Studi dell'Aquila, Via Camponeschi, 19, 67100 L'Aquila AQ, Italy

leonardo.pantoli@univaq.it

Deadline for manuscript submissions:

31 May 2022

Message from the Guest Editor

This Special Issue will focus on the SiGe design of nonlinear integrated circuits. SiGe technology has today reached a reliability and performance that make it the preferred choice for realizing circuits at very high frequencies, up to the THz band. In this sense, great effort should be made in the coming years to fill the so-called THz gap and propose electronic solutions suitable for practical applications. From an industrial and commercial point of view, several fields should take advantage of the use of SiGe technology. Developments in telecommunications, for instance, imaging applications or biomedical activities, are leading electronic systems to operate at even higher frequencies. Above 70–80 GHz, essential applications for modern society are now appearing in different fields, such as industrial, automotive, ultra-fast communications, medical and clinical sectors, security, and imaging.

Aspects related to the definition of new circuitry solutions at these frequencies, theoretical analysis or experimental verifications of SiGe technologies, MMICs design, CAD modeling and simulations, and characterization and test of nonlinear circuits and devices will be covered.

