

Seminar on

RF-MEMS Technology and PCM (Phase Change Material) Microwave and Millimeter-wave Control Circuits

by

Prof Pierre Blondy

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XLIM Research Institute

Date : 05 November 2015 (Thursday)

Time : 11:00 am – 12:00 noon

Venue : Room 15-202, 15/F, meeting room of State Key Laboratory of Millimeter Waves, 15/F, Academic 3, City University of Hong Kong

Abstract

The talk will present the latest developments at the XLIM Research Institute on integrated RF-MEMS and Phase Change Materials (PCM) devices. RF-MEMS technology has made steady progress over the past few years towards reliability, low cost and process integration. While this technology is currently being used in cell phone antenna tuners, our lab has focused its efforts on space systems applications leading to the first demonstration of this technology onboard of a satellite. Innovative thin film packaging and switched capacitor arrays will be presented as well. The second part of the talk will focus on the development of microwave circuits based on GeTe phase change materials. This material is being used for rewritable DVDs and solid-state memories. Recently, this material has been found to be suitable for bi-stable switching circuits in 50 Ohms microwave systems. The talk will present the firsts experimental results obtained in our lab on this innovative technology.

Biography

Pierre Blondy (M'00) received the Ph.D. and Habilitation degrees from the University of Limoges, Limoges, France, in 1998 and 2003 respectively. From 1998 to 2006, he was with the Centre National de la Recherche Scientifique (CNRS), as a Research Engineer with XLIM Laboratory, where he began research on RF-MEMS technology and its applications to microwave circuits. He is currently a Professor at the University of Limoges, where he holds an Institut Universitaire de France research chair. He was a visiting researcher at the University of Michigan, Ann Arbor, USA in 1997, and at the University of California at San Diego, La Jolla, USA in 2006 and 2008.

Dr. Blondy was an Associate Editor for the IEEE Microwave and Wireless Components Letters in 2006. He is a member of the IEEE International Microwave Conference Technical Program Committee since 2003, and chair of the Technical Committee on RF-MEMS. He received the “Outstanding Young Engineer Award” from the IEEE-MTT society in 2011. He has authored or co-authored more than 200 papers in refereed journals and conferences, holds 6 patents.

*** ALL ARE WELCOME ***

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