

## ΓΕΝΙΚΟ ΣΕΜΙΝΑΡΙΟ ΤΜΗΜΑΤΟΣ ΦΥΣΙΚΗΣ

# PHYSICS COLLOQUIUM

**Thursday, 25 February 2016**

**17:00 -18:00**

**3<sup>rd</sup> Floor Seminar Room**

**“Carbon based high frequency electronics”**

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FORTH-IESL

### **Abstract**

Semiconductor electronics are one of the building stones of modern information society. However new generation electronics require faster and inherently flexible materials to move forwards. Carbon nanotubes and graphene are forms of carbon that show great potential for electronics. I will present an overview of the limiting factors of current semiconductor electronics, the physical advantages of carbon based materials and then focus on the status of carbon based high frequency electronics in the Microelectronics research group of FORTH and Univ. of Crete. I will finally present the notion of ballistic electronics and discuss our recent work on the topic.