



**UNIVERSITÉ
DE GENÈVE**

FACULTÉ DES SCIENCES
Département de physique
nucléaire et corpusculaire

SEMINAIRE DE PHYSIQUE CORPUSCULAIRE

SUJET : " *New frontiers on photodetection* "

PAR: Dr Carla Aramo
INFN, Sezione di Napoli

DATE: **Vendredi 17 février 2012 à 14h00**

LIEU: École de Physique, Auditoire Stückelberg
24, quai Ernest-Ansermet, 1211 Genève 4

RÉSUMÉ:

In the last years the use of new materials and new technologies opened the door to new kind of devices based on the coupling of well known properties of silicon with properties of other materials. In particular carbon material, in the form of carbon nanotubes, has been used to create heterojunction with interesting photoconductivity characteristics. The new photodetectors obtained show to have peculiar and interesting characteristics with quantum efficiency ranging from >35% to >15% in the investigated wavelength interval from near infrared to near ultraviolet region. The device characteristics, the silicon-carbon nanotubes heterojunction and some future improvements towards single photon detection, medical imaging and nano-opto-electronics will be briefly illustrated.

INFORMATION : <http://dpnc.unige.ch/seminaire/annonce.html>
ORGANISATEUR: Mrs Gabriella Pasztor