

Extrait du Laboratoire Disciplinaire Pensée des Sciences

<http://www.pensee-sciences.ens.fr>

Fabio BELTRAM

- SCUOLA NORMALE SUPERIORE -

Date de mise en ligne : mercredi 30 mars 2011

Laboratoire Disciplinaire Pensée des Sciences



Fabio Beltram Director, Laboratorio NEST Professor, Physics of Matter phone. +39-050-509065 fax. +39 050 509295
- +39 050 563513

Fabio Beltram obtained the Doctor Degree in Physics and in Electronic Engineering. He carried out research activity from 1986 to 1991 in the USA at Bell Laboratories, since 1992 he is at the Classe di Scienze of the Scuola Normale Superiore where he is now Professor of Physics of Matter and Director of the SNS Nanoscience Laboratory (Laboratorio NEST). At present he is Director of Scuola Normale Superiore, Head of IIT@NEST Center for Nanotechnology Innovation, Vice President of Fondazione Toscana Life Sciences. Fabio Beltram is Fellow of the American Physical Society and Senior Member of IEEE.

Fabio Beltram and his group carry out research work in the field of nanoscience and nanotechnology with a rather broad spectrum of topics. His results appeared in about two hundred and fifty publications on international journals and patents. He has always worked on the physics and applications of semiconductor and hybrid superconductor-semiconductor nanostructures. Increasingly in the last years Fabio Beltram has carried out research activity in the field of molecular biophysics in order to apply his expertise in nanotechnology and in the engineering of nanostructures to significant issues in nanobiotechnology and biomedicine. Topics presently investigated include : coherent transport in semiconductor nanostructures with an emphasis on many-body effects, logic gates for quantum computation, single-photon sources for quantum cryptography, THz laser sources, ballistic transport in nano- and hybrid superconductor-semiconductor structures. In the context of molecular biophysics main lines include the design and exploitation of molecular-medicine vectors, biosensors, and novel mutants of green fluorescent proteins for single-molecule proteomics in live cells.