



CONSIGLIO NAZIONALE DELLE RICERCHE
ISTITUTO NAZIONALE DI OTTICA

AVVISO DI SEMINARIO

Il giorno venerdì 8 gennaio 2016 alle ore 11,00
presso l'Area della Ricerca CNR di Pisa, Aula 33, piano Terra, Edificio "A"

*il Dr. **Iacopo CARUSOTTO***

CNR-INO BEC center e Università di Trento, Povo (TN), Italy

iacopo.carusotto@unitn.it

terrà un seminario sul tema:

Quantum Fluids of Light: first successes and many exciting perspectives

Abstract.

I will begin with an introduction to the basic concept of quantum fluid of light when a many photon beam propagating in a nonlinear medium start displaying a collective behavior as a fluid of many interacting particles. After reviewing the key experiments demonstrating Bose-Einstein condensation and superfluidity properties in such fluids, I will present some among the most exciting new directions of theoretical and experimental research in this field, namely quantum hydrodynamics in acoustic black hole configurations, quantum magnetism and synthetic dimensions for light, and conservative quantum dynamics in paraxial propagation.