Department of Physics
Condensed Matter Physics
Clarendon Laboratory, Parks Road, Oxford OX1 3PU

UNIVERSITY OF OXFORD

CONDENSED MATTER SEMINAR

Thursday 10th of November at 2.15pm

"Novel applications of permanent magnets and small coils in Nuclear Magnetic Resonance"

Dr Dimitris Sakellariou

Laboratory of Structure and Dynamics using Magnetic Resonance (LSDRM) of the French Atomic Energy Commission (CEA in Saclay) in Paris

Permanent magnets (PM) can and have been used in Magnetic Resonance since its early days, to offer transportability and miniaturization. Modern materials offer new opportunities for generating highly compact homogeneous NMR and MRI systems. Over the last ten years we have developed a number of portable one-sided and enclosed high-resolution permanent magnet systems and recently a rotating MRI system for small animals. All these systems will be briefly discussed and novel PM systems, which can be combined with superconducting magnets, will be presented with particular emphasis on instrumentation advances towards sensor miniaturization.

Host: Prof Achillefs Kapanidis

Audrey Wood Seminar Room, Clarendon Laboratory