

# Service de Physique Nucléaire



## Séminaire

vendredi 21 septembre 2012 à 11h00

CEA Saclay, Orme des Merisiers, Bât. 703, Salle 135

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### From SATURNE-2 to COSY : What have we learned ?

Colin Wilkin

Physics and Astronomy Dept., UCL, London, GB

SATURNE-2 was the Saclay 3 GeV proton synchrotron that closed almost fifteen years ago. For the two decades before that it had a very productive programme of experiments in hadronic reactions. To a greater or lesser extent, this research has since been carried on and extended at the CELSIUS (Uppsala) and COSY (Jülich) accelerators. The purpose of this talk is to show how Physics in this domain has advanced since snow collapsed the roof of the SATURNE experimental hall in December 1997.

Particular attention is paid to the nucleon-nucleon and the meson production programmes, where many of the SATURNE initiatives have been further developed. This is especially true for experiments involving the  $\eta$  meson, where its mass has now been determined to high precision and its probable binding to nuclear matter more firmly established. Nevertheless, in certain areas, such as in the intensities of the polarised beams, or the ability to accelerate heavier particles, or the possibility of carrying out rescattering experiments, SATURNE-2 has proved irreplaceable!

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*Le café sera servi 10 minutes avant*

Contact : S.Platchkov@cea.fr    Tel : 01 69 08 74 59  
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