

1st Announcement
Gaseous Neutron Detector Workshop
Gaseous Detectors for Neutron Scattering Instruments
June 10 and 11, 2004
Penn State University
University Park, PA 16802
<http://sokol.phys.psu.edu/gdw>

This is the first announcement for the Gaseous Neutron Detector Workshop. The primary focus of this workshop is to evaluate recent advances in gaseous detector technology for use in the Cold Neutron Chopper Spectrometer (CNCS), a time-of-flight inelastic neutron scattering instrument for condensed matter, materials science and biological research.

The CNCS will be located at the Spallation Neutron Source (SNS) which is currently under construction. The SNS (<http://www.sns.gov>), when fully operational, will be the most intense pulsed neutron source in the world. The CNCS is being designed to multiply this flux advantage by utilizing a large area (~ 100 square meters) detector bank. Further information on the CNCS may be found at <http://sokol.phys.psu.edu/CNCS>. New instruments, such as the CNCS and others planned for both the SNS and other sources, have common detector requirements. These include large area coverage >20 m², course position resolution ~(2.54 cm)², high timing accuracy and high count rate capability. These requirements, particularly in terms of area and count rate, are straining the current technology for such detectors. In particular, the escalating costs of large detector banks with current technologies, is becoming a limiting factor in instrument performance.

The workshop will explore alternatives to the commercially available ³He proportional tubes that are used in nearly all existing and planned instruments. Such alternatives include detector designs (i.e. longer tubes to lower cost), new packaging techniques (multi-tube detectors), application of existing technologies to fit the requirements of CNCS (wire chamber arrays) and new detector technologies (Gas Electron Multipliers). In addition we wish to explore different manufacturing techniques (lab and university based construction) that could result in more cost effective detectors.

The workshop will consist of invited talks and contributed presentations. Open sessions to discuss the merits of various technologies will be an integral part of the workshop. Confirmed speakers include:

- Alex Barzilov (Penn State University)
- Ron Cooper (Spallation Neutron Source)
- Bruno Guerard (Institut Laue-Langevin)
- Nathan Johnson (General Electric Power Systems / Reuter-Stokes)
- Menhard Kocsis (European Synchrotron Radiation Facility)
- Rick Riedel (Spallation Neutron Source)
- Christian Schmidt (University of Heidelberg)
- Keith Solberg (Indiana University)

The workshop will be held at the Pennsylvania State University on June 10th and 11th of 2004. The meeting will take place immediately following the second ACNS meeting in College Park, MD.

Further details on the meeting are available at <http://sokol.phys.psu.edu/gdw>.

The **early registration deadline** is **May 7**.

A limited amount of travel support for participants is available; please contact the local organizing committee if you are interested.

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