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Workshop on Helium-3 Alternatives for Neutron Detection

Friday October 28, 2011, Hotel Melia, rooms B-C

Even in the third year after the recognition of the shortage in the supply of Helium-3 we can still see a high demand to hold this Workshop in Europe, after the great success from the last two years, held at NSS in Orlando and Knoxville.

This Workshop will focus on neutron detection methods and technologies for science and applications in the age of a diminishing supply of He-3. One of the main uses for He-3 is in gas proportional counters for neutron detection, which are applied to homeland security, non-proliferation, neutron scattering science, commercial instruments, and well-logging detectors. It is also used in dilution refrigerators, targets or target cooling in research, and for basic research in condensed matter physics. Due to the large increase in the applications named above, the supply can no longer meet the demand and the He-3 supply is dwindling. The objective of this workshop is to provide a forum for discussion of the state of the art of neutron detection and the issues surrounding the current shortage of He-3.

The workshop program is the following:

HE4-3: Wavelength-Shifting-Fiber and Scintillator Based Neutron Detector Development at SNS 4877

C. -L. Wang, L. G. Clonts, R. G. Cooper, M. L. Crow, Y. Diawara, E. D. Ellis, B. W. Hannan, J. P. Hodges, J. D. Richards, R. A. Riedel, J. Hayward, H. E. Workman and C. Kline

HE4-4: First Tests of Linear-Position-Sensitive Twin Tubes with BF3 N/A

S. Alimov, C. Schulz, C. Rethfeldt and T. Wilpert

HE4-5: Characterization of a Large-Area ZnS/^{6}LiF Thermal Neutron Detector Read Out by Wavelength-Shifting Fibers N/A

Z. W. Bell, H. Workman, C. Kline and B. W. Hannan

We're looking forward to seeing you in Valencia and enjoying a stimulating day.

Ralf Engels, Forschungszentrum Juelich GmbH
Richard Kouzes, Pacific Northwest National Laboratory

5th International Workshop on the Molecular Radiology of Breast Cancer

Final Program

Sunday, October 30, 2011, Auditorium 3, VCC

This one-day Workshop will take place on Sunday immediately after the annual IEEE Nuclear Science Symposium & Medical Imaging Conference in Valencia, Spain. As in past years since 2002, the overall goals of the proposed events are to convene imaging physicists and engineers as well as chemists, biologists, physicians and students from around the world to discuss important issues related to breast cancer evaluation using functional Molecular Imaging techniques involving nuclear radiotracers, x-rays, and other technologies. Key issues to address are the recent successes and limitations of nuclear imaging approaches [molecular breast imaging/breast specific gamma imaging, PEM, and mammotomography with single gamma and positron emitting tracers] and what steps are required to continue to increase their role in breast cancer detection, diagnostics and management. Thus, in addition to having educational goals, the meeting serves as a venue to understand and suggest solutions to problems associated with incorporating nuclear imaging methods into the clinic for breast cancer screening, diagnosis, and staging. The outline of the program, which incorporates suggestions from past convened Workshops, is as follows: (1) Review of the pathology of breast cancer; (2) Contemporary clinical intervention for breast cancer; (3) New biomarkers and technology for molecular imaging; (4) Survey of clinical studies using single photon and coincidence imaging approaches; (5) Interventional molecular imaging. While there is a logically progressive and structured format, the setting is meant to be informal, with the Workshop including ample discussion time and interaction between the audience members and invited didactic presenters. This Workshop will provide the latest research and clinical information with lively interaction and discussions.

Martin Tornai, Duke University, USA
Stanislaw Majewski, West Virginia University, USA
Mark Williams, University of Virginia, USA

Marie-Alix Duval, Imaging & Modeling in Neurobiology & Cancer Laboratory, France
Michael Hofmann, University of Hannover Medical School, Germany
Craig Levin, Stanford University, USA

Workshop on ATCA and MicroTCA for Physics

Final Program

October 22-23, 2011, Hotel Melia, rooms A-B

Dear Colleagues. We would like to invite you to the 5th ATCA /MicroTCA for Physics Workshop in Valencia on Saturday and Sunday just prior to the 2011 IEEE Nuclear Science Symposium and Medical Imaging Conference. The Workshop is under the auspices of IEEE and the Laboratory Members of the PICMG xTCA for Physics open standards consortium.

The original motivation for interest in the new telecom xTCA standards stemmed from studies for large high energy accelerator controls and detector systems. The main attraction was to achieve very high availability for very large systems in which studies demonstrated would be necessary for acceptable up-time. However such systems also would bring many advantages to any large system, including an architecture that accommodates state of the art multi gigabit serial rather than parallel bus backplane inter-module communication architectures. In November 2008 at the 2nd xTCA for Physics Workshop in Dresden an ad hoc committee from several major physics labs agreed to accept an invitation to join the PICMG open standards consortium to develop xTCA for physics extensions to the existing PICMG standards. Work began in May-June 2009 and in 2011 has now produced important new IO, timing and intelligent platform management standards for two hardware extensions, one for ATCA and one for MicroTCA; a guideline document for precise timing distribution; and has made significant progress toward uniform software architectures and protocols to foster greater design uniformity and interoperability of hardware and software modules developed by both labs and industry. In 2011 key infrastructure support is available from industry and several labs are pursuing implementation programs in both controls and detector applications.

Since many potential users are still new to ATCA/µTCA while others are actively designing on the open standard, this workshop has four main components: (1) introductory xTCA hardware and software tutorials; (2) status reports on the new extensions by committee members; (3) tutorials of hardware and software products by industry and labs, and (4) new application developments in progress by both labs and industry. The program includes a small industrial exhibit and invited talks by vendors.

Ray Larsen, I&C Division, SLAC
Javier Bermejo, ESSB Bilbao.