



Australian Government



Nuclear-based science benefiting all Australians

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**RE: PNCMI 2014 Location**

Dear PNCMI International Committee,

The Australian Nuclear Science and Technology Organisation (ANSTO) welcomes the opportunity to bid for the 10th International Workshop on Polarised Neutrons in Condensed Matter Investigations, PNCMI 2014, as a core participant in and representative of the Australian polarised neutron scattering community. We also offer to act as a backup host for PNCMI 2012. In the tradition of the previous PNCMI workshops, we propose to organise an associated polarised neutron school in 2014 at the Bragg Institute. This school will likely be combined with the yearly school of the Asia-Oceania Neutron Scattering Association (AONSA). ANSTO will underwrite the PNCMI 2014 workshop and the school.

ANSTO is Australia's nuclear and scientific research and development organisation responsible for delivering expert scientific and technical advice, products and services to government, industry, and research organisations. ANSTO's new research reactor OPAL provides world-class neutron research capabilities for understanding materials in addition to an extensive range of radioisotope products and industrial services.

Polarised neutron scattering has a long tradition in Australia, dating back to 1974 with the LONGPOL instrument at the HIFAR reactor as one of the first demonstrations of neutron polarisation analysis. LONGPOL served the Australian magnetism community for over 30 years and has produced important scientific results, for example in the areas of spin glasses, short range order phenomena, flux relaxation in high- $T_C$  superconductors, crystal-field transitions, domains in amorphous magnets, etc. After the commissioning of the new OPAL research reactor in 2007, the initial suite of 7 operating instruments and another 7 additional instruments in design or construction phase will provide the Australian users with unprecedented experimental capabilities in neutron scattering which are also made available to the international user community.

The Bragg Institute has recently made an A\$ 4.5 million investment to ensure not only that the neutron scattering instruments are competitive on an international level, but also that state-of-the-art polarised neutron scattering facilities will be made available for the Australian users. While the Platypus reflectometer and the Quokka SANS instrument already have

polarised-neutron capabilities, we are currently upgrading - in a collaboration with the ILL Grenoble - our suite of inelastic neutron spectrometers Pelican (TOF inelastic spectrometer), Taipan (thermal triple-axis spectrometer) and Sika (cold triple-axis spectrometer) as well as our neutron diffraction instrument Wombat with  $^3\text{He}$  based polarisers and/or polarisation analysers. We will also provide polarisation analysis of high-intensity specular and diffuse scattering for reflectometry, as well as small-angle neutron scattering. We are planning to implement the above by late in 2012. Therefore, we will be able to provide state-of-the-art polarised neutron instrumentation for the participants of the polarised neutron school.

We propose hosting PNCMI 2014 in Sydney towards the end of September. End of September is spring in Sydney, offering delegates very pleasant temperatures (as was experienced at the 2000 Olympic Games, for instance). The exact dates will be selected after taking into consideration other international conferences, academic semesters and major international public holidays and religious festivals. We will likely choose an attractive venue close to a major beach in Sydney. Sydney is a very cost effective city with great food and a wide range of hotel accommodation (the average rate for a hotel in Sydney is about A\$ 143). We are confident that we can organise this workshop at a workshop fee which is in line with the previous PNCMI workshops.

Best regards,

Frank Klose

The following scientists have agreed to support the local organising committee:

Clemens Ulrich	– Associate Professor, University of New South Wales, Sydney
Annemieke Mulders	– Senior Lecturer, University of New South Wales @ ADFA, Canberra
Shane Kennedy	– Technical Director, Bragg Institute
Garry McIntyre	– Research Leader, Bragg Institute
Hal Lee	– Instrument Scientist, Bragg Institute
Dehong Yu	– Instrument Scientist, Bragg Institute
Stephen Holt	– Instrument Scientist, Bragg Institute
Phil Bentley	– Instrument Scientist, Bragg Institute
Elliot Gilbert	– Instrument Scientist, Bragg Institute