



Management

After completing the second year of the LAHN Project, we find ourselves surrounded with your support and encouragement, each of you making its own contribution rising to the challenge of building a facility that will become a landmark in the history of Argentina's science system: its first large-scale national laboratory. Together we have demonstrated the commitment of a strong scientific community willing to make use of neutron scattering techniques in its research, our success in developing new scientific and technological capabilities, the support and cooperation of the international community, our possibilities to train young people to use, design, build and operate this facility.

We still have a long way to go, but we wish to thank all of you for believing in this project and for joining us, as well as to share with you how proud we are to be leading this adventure.

LAHN Management Team



Training and Education

Great success of the 2017 edition of ET-NA school

The second edition of the Argentine School on Neutron Scattering and Imaging ET-NA|2017 was held in Buenos Aires from October 30th to November 10th, organised by the LAHN project and with the academic endorsement of the Dan Beninson Institute. This year we reached 97 registered candidates, and after a selection process involving personal interviews and video conferencing, a total number of 27 students were admitted. Participants arrived from 9 locations around Argentina as well as 6 other latinamerican countries. During two very intense weeks, lectures were delivered on the theory of neutron scattering, instrumentation and applications of scattering and



imaging to several scientific areas. As part of ETNA's identity, several experiments were conducted by the students which this year were focused on X-ray diffraction of objects and neutron detection technologies. The LAHN team acknowledges all the participants and lecturers for their commitment and dedication; as well as the financial support from institutions as CNEA, INVAP and CONUAR.

BEC.Ar Programme: argentine trainees at european neutron scattering labs

Since late september, Dr. Manuel Suarez Anzorena joined the Group on Sample Environment at the FRM-II reactor, run by the



Heinz Maier-Leibnitz Zentrum (MLZ) in Garching, Germany. This group gives support to users in all aspects related to sample conditioning: temperature, pressure, gas atmosphere, in-operando studies, etc. for all the instrument suite of FRM-II. The goal of Manuel's stay is to get trained in sample environment control and protocols, their maintenance, management of requests and communication protocols.





LAHN present at several events

A number of talks were delivered during the last trimester of 2017 about the current development of the LAHN project and neutron scattering techniques. We joined the CORENDE conference on non-destructive and structural assays, held in the city of Neuquén; as well as the Annual Meeting of the Argentine Crystallography Association in the Bahía Blanca. In addition, talks were delivered on the training and communication strategies of the LAHN project during the International Symposium on Education, Training, Outreach and Knowledge Management in the Nuclear Area; held in Buenos Aires.



Phase II of the instrumentation suite for LAHN: call for contributions to Science Cases

We remind you that the call is still open for contributions to LAHN's instrumentation suite [Science Cases](#). If you believe that one or more neutron scattering or imaging techniques can contribute to your research, please contact us get included in these documents. It is the way to give support to this project. No previous experience needed! lahn@cnea.gov.ar.



ANDES diffractometer celebrates the ending of the conceptual design stage

On November 23rd and 24th, the accomplishments of the ANDES team along 2017 were presented to the audience at Centro Atómico Bariloche. The different work groups discussed the design solutions adopted after the international STAP meeting recommendations received in March.



The team leader, Dr. Miguel Ángel Vicente, proudly presented the mechanical designs selected for each component of the instrument, each of which had been carefully studied and discussed by the team and with the experts. A preliminary design was also presented for the communication interfaces between the components and the control system; as well as the evaluation of shielding performance and neutron optics performance. During the following weeks, the documentation of designs will be finished and the milestone for the completion of the conceptual design achieved. Congratulations to the ANDES team!



Applications of SANS to the dairy industry

Physics World magazine featured a very interesting article that illustrates applications of Small Angle Neutron Scattering (SANS) to the study of dairy products; a perfect example of an effort to bring neutron scattering expertise to the industry and solve a problem with technological relevance.

The substructures in the micelles of milk protein, casein, are responsible for the properties of the milk, and in particular for the texture and "mouthfeel" of the finished product, whether it is yoghurt, cheese or anything else derived from milk.

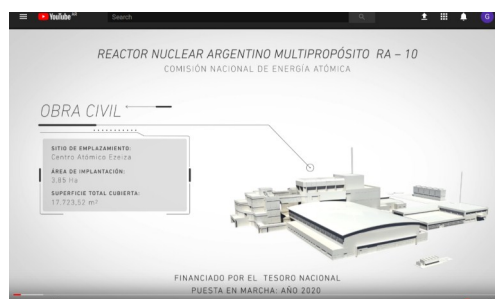
Small-angle neutron and X-ray scattering (SAS) techniques are perfect tools for studying casein micelles. [Read more](#).



Advances in the civil works of RA-10:

The area that will host the instruments demanding neutron guides. (Guide Hall) has been prepared with the damp proof membrane and a sub-base layer. The grid of reinforcement bars was installed for the Guide Hall foundation slab.

New video explaining the RA-10 reactor:
Watch it [here](#).





Postdoctoral Fellow in Neutron Spectroscopy PSI and EPFL:

- Laboratory for Quantum Magnetism at EPFL and Laboratory for Neutron Scattering and Imaging at PSI: Completion and scientific exploitation of the novel neutron spectrometer CAMEA. Contact:

Prof. [Henrik M. Ronnow](#), Prof. Dr [Christof Niedermayer](#)

Instrument scientist at the FRM II, Garching, Germany

For the development and operation of the Resonance Spin-echo spectrometer RESEDA we invite applications (full time position 40.1 h/week) as Instrument scientist. Contact Dr. Christian Franz (phone +49 89 289 14760, Christian.franz@frm2.tum.de)

Ph.D Position - ISIS Molecular Spectroscopy Group and Chalmers University

The PhD student will join the research group of Assoc. Prof. Maths Karlsson at the Energy and Materials Division of the Department of Chemistry and Chemical Engineering at Chalmers University of Technology. The PhD student will spend about 75% of the time at the ISIS facility, UK. Further details can be found [here](#), or by visiting [this site](#).

Postdoc position at NCNR/Uni. of Delaware

to study the structure and dynamics of macromolecules in porous media. The successful candidate is expected to work mostly at the NIST Center for Neutron Research (NCNR) in Gaithersburg, Maryland. Please submit a cover letter, a complete CV, and the names and contact information of references to Dr. Yun Liu (yunliu@nist.gov or yunliu@udel.edu).

PhD Students Wanted - Hong Kong PhD Fellowship Program

http://www.cityu.edu.hk/cse/fellowship/HKPFS_Poster_e-version.pdf

Outstanding students are sought to pursue neutron and synchrotron studies of structure and dynamics of advanced materials. Current research topics include metallic glasses, high entropy alloys, and magnetic shape memory alloys. Admitted students are based in Hong Kong, but will have ample opportunities to travel to world-class facilities for experiments and training. For details, please contact xlwang@cityu.edu.hk

Open Position at SINQ (PSI): Instrument Scientist for imaging NEUTRA

This is a Tenure Track position. The employment contract will initially be limited to 3 years. Contact Prof. Dr. Markus Strobl, phone: +41-56-310-5941. Index N°3304-01: <https://www.psi.ch/pa/stellenangebote/1619>



- [Primer Encuentro de Jóvenes Investigadores en Ciencias de Materiales](#), 13th-14th april 2018, Montevideo, Uruguay.
- [14th Bombannes Summer School on "Scattering Methods Applied to Soft Condensed Matter"](#), 19- 26 Junio 2018, Bombannes/ Carcans-Maubuisson, Gironde, France.
- [38th Berlin School on Neutron Scattering](#), March 1-9, 2018, Berlin, Germany.
- [SXNS15: 2018 International Conference on Surface X-ray and Neutron Scattering](#), July 15-19, 2018, Pohang Light Source, Republic of Korea.
- [Gordon Research Conference Scientific Methods in Cultural Heritage Research](#), July 22-27, 2018, Castelldefels, Spain.
- [SAS2018: XVII International Conference on Small-Angle Scattering](#), October 7-12, 2018, Traverse City, MI, USA.
- [Neutrons and Food 2018](#), October 16-19, 2018, Sydney, Australia

The LAHN team wishes you a merry christmas and happy new year. We hope to meet you again in 2018 with refreshed energy and a dose of confidence to face upcoming challenges. Thank you for your support!



Images from 2017. Click!