



FIESTA 2017

Fission Experiments and Theoretical Advances

Sep. 17 – 22, 2017
Santa Fe, New Mexico, USA

<http://t2.lanl.gov/fiesta2017>

First Announcement

March 29, 2017

This is the First Announcement of the International school and workshop on “Fission Experiments and Theoretical Advances – FIESTA 2017”, Sep. 17-22, 2017. The event will take place in beautiful Santa Fe, New Mexico, USA.

FIESTA 2017 follows our first event organized back in 2014 in Santa Fe, NM. The year 2018 will mark the 80th anniversary of the discovery of nuclear fission by Otto Hahn and Fritz Strassmann, whose correct theoretical interpretation came only a few weeks later by Lise Meitner and her nephew Otto Robert Frisch. This discovery opened up the atomic era, which altered the course of human history.

Almost eighty years later, research in nuclear fission is still central to our understanding of nuclear forces, and a perfect example of a quantum many-body problem. While the qualitative understanding of fission was achieved very quickly after its discovery, an

accurate and quantitative modeling of this process remains elusive, while numerous applications, e.g. the nuclear fuel cycle, nonproliferation, stockpile stewardship, etc., rely on accurate and detailed fission data.

FIESTA 2017 combines a school, including practical exercises and a visit to experimental facilities at the Los Alamos Neutron Science Center (LANSCE) dedicated to fission research, and a workshop intended to dive into current research activities in the topics covered by the school.

It will again take place at the Eldorado Hotel (<http://www.eldoradohotel.com>) in Santa Fe, NM, on Sep. 17-22, 2017.

This time, the event will be organized as follows:

- School Lectures in the morning (3h)
- Practice Sessions (2h) in the afternoon
- Workshop (~2h) in the afternoon/evening

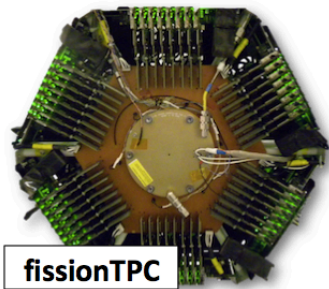
The Sep. 17-22 week will unfold as follows:

- Day 1: Fission Cross Sections
 - **Dr. Walid Younes** (LLNL), **Dr. Paul Lisowski** (LANL)
- Day 2: Fission Yields
 - **Dr. Nicolas Schunck** (LLNL), **Dr. Fanny Farget** (CNRS)
- Day 3: Visit to LANSCE experimental facility
 - fissionTPC, SPIDER, DANCE+NEUANCE, Chi-Nu
- Day 4: Prompt Fission Neutrons and Gamma Rays
 - **Dr. Olivier Serot** (CEA), **Dr. Franz-Josef Habsch** (JRC)
- Day 5: Applications
 - **Dr. Jean-Christophe Sublet** (IAEA), **Dr. Avneet Sood** (LANL)

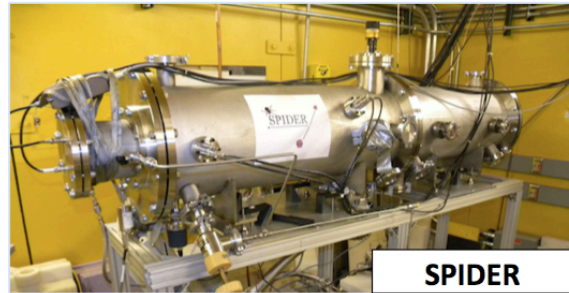
Each day (except day 3), two school lectures will be delivered in the morning, followed by a practice session using Jupyter notebooks (<http://jupyter.org>) that will be made available to the students ahead of the school. Elementary notions of the Python programming language would be useful but are not necessary. A poster session and workshop event will conclude each day. The daily workshop will cover the theme that has been presented each morning.

Day 3 will be dedicated to a visit of the **Los Alamos Neutron Science Center** (LANSCE) experimental facilities dedicated to nuclear fission research. This visit will include a tour of:

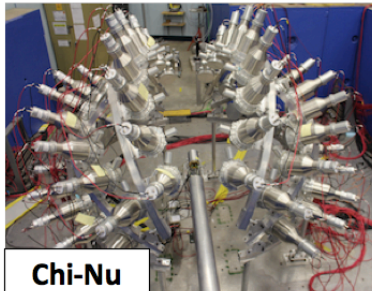
- the **Chi-Nu** detector arrays dedicated to the accurate measure of prompt fission neutron spectra;
- the fission Time Projection Chamber (**fissionTPC**) used to accurately measure neutron-induced fission cross sections and fission fragment angular distributions;
- the **SPIDER** spectrometer developed to perform $2E-2v$ measurements of fission fragment yields in mass and kinetic energy;
- and finally, the **DANCE+NEUANCE** setup used recently to measure prompt fission neutrons and gamma rays in coincidence.



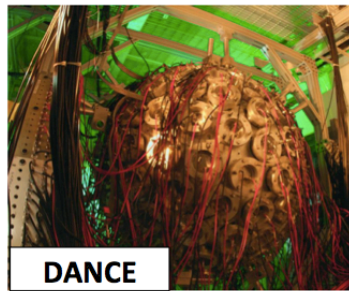
fissionTPC



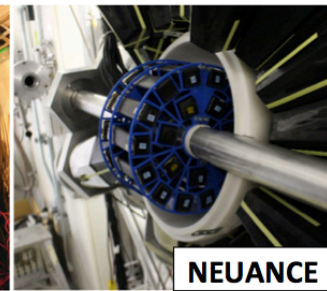
SPIDER



Chi-Nu



DANCE



NEUANCE

Both the school and workshop will have limited seating, so we encourage anyone interested in applying to register early. If you are interested in receiving further notice regarding this event, please send an email to fission2017@lanl.gov with the subject title: "subscribe".

Venue & Accommodation

The FIESTA school and workshop will take place in the Eldorado Hotel, a few steps away from the Historic Plaza in Santa Fe.



Eldorado Hotel

www.eldoradohotel.com

309 W San Francisco St
Santa Fe, NM 87501, USA
(80) 955-4455

A block of rooms has been reserved for the school and workshop participants. Instructions on how to reserve a room will be posted on our website, once the registration to the event is open. Rooms will be available at the special U.S. government rate of 100.00 USD (+ taxes and fees).

Registration

Registration for the school and workshop will be done online through the Conference web site at <http://t2.lanl.gov/fiesta2017/>, and will be open in the coming months.

Support for School Participants: the registration fee for students will be waived. In addition, all participants can request support for accommodation, domestic economy travel, and per diem. Upon registration, school participants will be asked to provide a brief Statement of interest in the school topics.

Abstract Submission

Abstracts for the workshop will be requested online at the time of registration.

Proceedings, Lecture Notes & Notebooks

Lecture notes will be provided to all participants before the start of the school.

All practical sessions will be conducted using Jupyter Python notebooks (<http://jupyter.org/>), which will be provided to all school participants in due time.

Workshop presentations will be made publicly accessible on our web site. We do not plan to publish any workshop proceedings at this time.

Scientific Advisory Committee

- Navin Alahari, GANIL, France
- Andrei Andreyev, York University, UK
- Eric Bauge, CEA/DAM, France
- Olivier Bouland, CEA/Cadarache, France
- Roberto Capote, International Atomic Energy Agency, Austria
- Mark B. Chadwick, Los Alamos National Laboratory, USA
- Satoshi Chiba, Tokyo Institute of Technology, Japan
- Jolie Cizewski, Rutgers University, USA
- Yaron Danon, Rensselaer Polytechnic Institute, NY, USA
- Michael E. Dunn, Oak Ridge National Laboratory, USA
- Franz-Josef Hamsch, JRC, Belgium, Europe
- Joseph H. Hamilton, Vanderbilt University, USA
- Toshihiko Kawano, Los Alamos National Laboratory, USA
- Luiz Leal, IRSN, France
- Robert C. Little, Los Alamos National Laboratory, USA
- Witek Nazarewicz, Michigan State University, USA
- Katsuhisa Nishio, Japan Atomic Energy Agency, Japan
- Stephan Pomp, Uppsala University, Sweden
- Sara A. Pozzi, University of Michigan, USA
- Anil K. Prinja, University of New Mexico, USA
- Nicholas Schunck, Lawrence Livermore National Laboratory, USA
- Alejandro Sonzogni, Brookhaven National Laboratory, USA
- Julien Taieb, CEA/DAM, France
- Henry Weller, Triangle Universities Nuclear Laboratory, USA

Local Organizing Committee (LANL, USA)



- Patrick Talou
- Fredrik Tovesson
- Morgan C. White
- Dana L. Duke
- Brett Manning
- Denise Neudecker
- Gencho Rusev
- Ionel Stetcu

Key Dates

First Announcement	March 29, 2017
Second Announcement	April 28, 2017
Abstract Submission & Pre-Registration	May 26, 2017
Review Decision sent to the Authors	June 9, 2017
School Registration Deadline	June 23, 2017
Workshop Registration Deadline	July 28, 2017
Workshop Hotel Room Reservations Due	August 2017
School & Workshop	Sep. 17-22, 2017

Contacts

If you have any questions regarding the school or/and workshop, please contact us at: fission2017@lanl.gov.

FIESTA 2017 Website: <http://t2.lanl.gov/fiesta2017>

Sponsors

Los Alamos National Laboratory
Theoretical Division; Physics Division; Science Campaign; Advanced Simulations and Computations; Chemistry Division; Nuclear Radiochemistry

