



# FIESTA 2017

## Fission Experiments and Theoretical Advances

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

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

## Second Announcement

April 28, 2017

This is the Second 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 80<sup>th</sup> 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:

- Sep. 17: Welcome & Reception
- Sep. 18-22: School & Workshop
- Sep. 21: Conference dinner

And in more details,

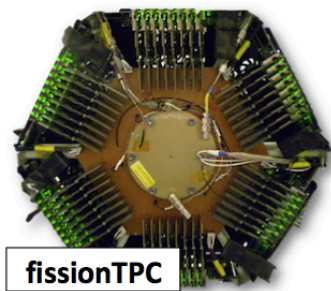
- Monday, Sep. 18: Fission Cross Sections
  - School lecturers: **Walid Younes** (LLNL), **Paul W. Lisowski** (LANL)
  - Practical sessions instructor: **Fredrik Tovesson** (LANL)
  - Workshop chair: **Toshihiko Kawano** (LANL)
- Tuesday, Sep. 19: Fission Yields
  - School lecturers: **Nicolas Schunck** (LLNL), **Fanny Farget** (CNRS)
  - Practical session instructor: **Matthew E. Gooden** (LANL)
  - Workshop chair: **Jørgen Randrup** (LBNL)
- Wednesday, Sep. 20: Visit to LANSCE experimental facility
  - fissionTPC, SPIDER, DANCE+NEUANCE, Chi-Nu
- Thursday, Sep. 21: Prompt Fission Neutrons and Gamma Rays
  - School lecturers: **Olivier Serot** (CEA), **Franz-Josef Hambsch** (JRC)
  - Practical session instructor: **Ramona Vogt** (LLNL/UC Davis)
  - Workshop chair: **Yaron Danon** (RPI)
- Friday, Sep. 22: Applications
  - School lecturers: **Jean-Christophe Sublet** (IAEA), **Avneet Sood** (LANL)

- Practical session instructors: **Cameron Bates & Madison Andrews** (LANL)
- Workshop chair: **Sara Pozzi** (UM)

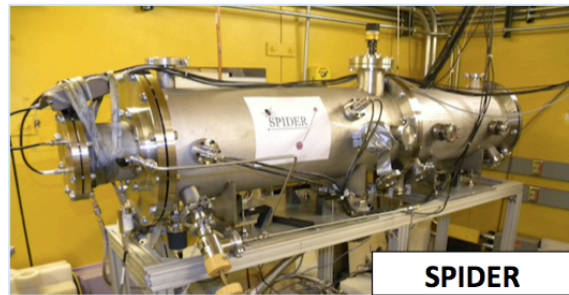
Each day (except day 3), two school lectures will be delivered in the morning, followed by a practice session using Jupyter notebooks (<http://jupyter.org>) that will be made available to the students ahead of the school. Elementary notions of the Python programming language would be useful but are not 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:

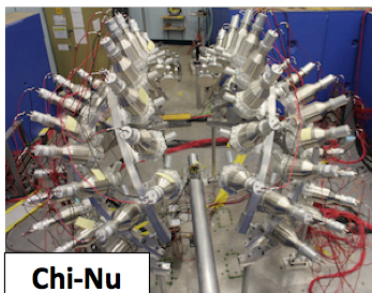
- the **Chi-Nu** detector arrays dedicated to the accurate measure of prompt fission neutron spectra;
- the fission Time Projection Chamber (**fissionTPC**) used to accurately measure neutron-induced fission cross sections and fission fragment angular distributions;
- the **SPIDER** spectrometer developed 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**



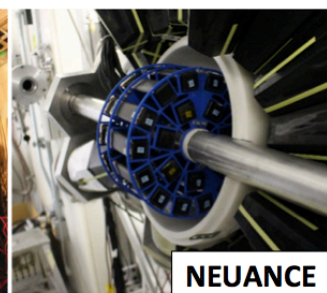
**SPIDER**



**Chi-Nu**



**DANCE**



**NEUANCE**

## Venue & Accommodation

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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](http://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).

## School Application Form

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The school will have **limited seating**, in particular for the visit of the experimental facilities. Anyone interested in attending should fill out the application form that can be found on our website at: <http://t2.lanl.gov/fiesta2017/school.shtml> **before May 26, 2017**. Each application will be reviewed carefully and decisions will be sent out by June 9, 2017.

**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.

## Registration

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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.

## Abstract Submission

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

## **Proceedings, Lecture Notes & Notebooks**

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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**

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- 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
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- Julien Taieb, CEA/DAM, France
- Henry Weller, Triangle Universities Nuclear Laboratory, USA

## Local Organizing Committee (LANL, USA)

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

## Key Dates

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First Announcement	March 29, 2017
Second Announcement	April 28, 2017
School Application Forms Due	May 29, 2017
School Application Decisions Sent Out	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

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

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

## Sponsors

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Los Alamos National Laboratory  
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Computations; Chemistry Division; Nuclear Radiochemistry

