



# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



La Villa Clythia!



Speakers



Students



Committee

Speakers

Students

Committee







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Speakers  
Students  
Committee





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Students  
Committee



Speakers







# Neutrons and Nuclei

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Dr. Mourad AICHE



Over the years, efforts have been made to improve the quality of the basic nuclear data for nuclear applications. In the nuclear industry, the fast reactor designs and applications have been the driving force for new data measurements in the high neutron-energy range. Recently, I was involved in data measurements of neutron-induced fission and capture cross sections have been accomplished primarily in support of transmutation or incineration applications and GEN IV fast reactor design.

Professor

University of Bordeaux, France

Speakers  
Students  
Committee





# Neutrons and Nuclei

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Alain ASTIER



Research fields: nuclear structure of exotic nuclei, produced at high spins as fission fragments and studied by prompt gamma spectroscopy. Study of the evolution of spherical gaps at large neutron excess, in particular the N=50 gap towards the doubly-magic (?)  $^{78}\text{Ni}$  Graal nucleus. Also interested by the clusterization of heavy nuclei such as  $^{212}\text{Po}$  which can sometimes behave as a " $\alpha+^{208}\text{Pb}$ " system.

CNRS Researcher (Organizer)

CSNSM Orsay, France

Speakers  
Students  
Committee





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Kaushik BANERJEE



Design and development of liquid scintillator based fast neutron detector. Study of fusion fission dynamics in the actinide region to understand the role of non-equilibrium fission processes. Extraction of Nuclear level density and study its variation with excitation energy and angular momentum. Understand the role of collective excitation in nuclear level density.

Scientific Officer

Variable Energy Cyclotron Centre, Kolkata, India

Speakers  
Students  
Committee







# Neutrons and Nuclei

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La Villa Clythia, Fréjus - France



Roland BEYER



I finished my studies of physics in 2006. The topic of my diploma thesis was the “Development of neutron time-of-flight detector for the measurement of astrophysical relevant ( $\gamma, n$ ) reactions”. Since then I’m working as a PhD student at Helmholtz-Zentrum Dresden-Rossendorf. My tasks are the preparation, execution and analysis of several experiments to measure different kinds of interactions of fast neutron, namely elastic and inelastic scattering, fission and transmission. I just submitted my PhD thesis with the topic “Inelastic scattering of fast neutrons on  $^{56}\text{Fe}$ ” and I’m now waiting for defending it.

PhD student  
Helmholtz-Zentrum Dresden-Rossendorf, Germany

Speakers  
Students  
Committee





# Neutrons and Nuclei

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Thomas BONNET



My current scientific work is mainly dedicated to an experiment, planned on the Neutron For science (NFS) facility at Ganil, to measure  $(n,2n)$  reaction cross-sections on  $^{239}\text{Pu}$ . This experiment will use a neutron ball counter : the CARMEN detector and a fission chamber as a fission veto which, both, require developments and optimizations.

Postdoc

CEA/DAM-DIF

Speakers  
Students  
Committee





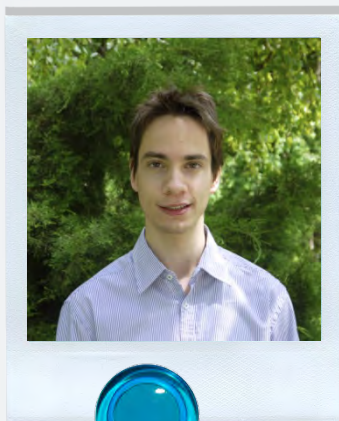


# Neutrons and Nuclei

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Dominique BOURGIN



We measured the fusion cross sections for the  $^{40}\text{Ca} + ^{58}\text{Ni}$  and  $^{40}\text{Ca} + ^{64}\text{Ni}$  systems at energies around and below the Coulomb barrier at Laboratori Nazionali di Legnaro. The fusion excitation functions and barrier distributions were extracted from the data. Coupled-channels calculations were also performed. The influence of transfer channels in the  $^{40}\text{Ca} + ^{58,64}\text{Ni}$  fusion reactions on the fusion cross section was investigated.

PhD student since October 1<sup>st</sup> 2013

IPHC Strasbourg, France

Speakers  
Students  
Committee





# Neutrons and Nuclei

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Michel BRUNE



Team leader of the Cavity QED group together with Jean-Michel Raimond and Serge Haroche. We trap microwave photons in a superconducting cavity and manipulate their quantum state with single Rydberg atoms. By this mean, we perform experiments on the most fundamental and counterintuitive aspects of quantum theory like the measurements postulates and the problem of state superposition at macroscopic scale.

Speaker

Laboratoire Kastler Brossel, Paris, France

Speakers  
Students  
Committee





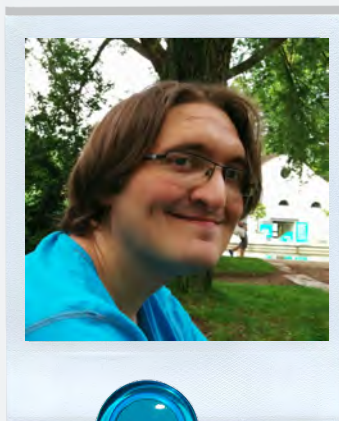


# Neutrons and Nuclei

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Olivier CAPDEVIELLE



Future nuclear reactors developments require high precision measurements, such as  $(n,xn\gamma)$  reactions cross sections. Our experimental method is based on prompt gamma spectroscopy and time-of-flight techniques. Measurements are performed at the GELINA facility (IRMM, Geel). The experimental set-up consists in four HPGe detectors and a fission chamber. After a presentation of the general context, setup and analysis procedure for zirconium isotopes will be discussed.

PhD Student since october 2014

IPHC, Strasbourg, France

Speakers  
Students  
Committee





# Neutrons and Nuclei

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Abdelaziz CHEBBOUBI



Since the discovery of the fission process in 1939, numerous models have been developed but none can explain it as a whole. The aim of my thesis is to focus on the dynamical aspect of the fission through measurements of isomeric ratios and the development of a new gas filled magnet in the framework of the FIPPS (Fission Product Prompt gamma-ray Spectrometer) project to bring new information for fission models.

PhD student (since October 2012)

LPSC, Grenoble, France

Speakers  
Students  
Committee





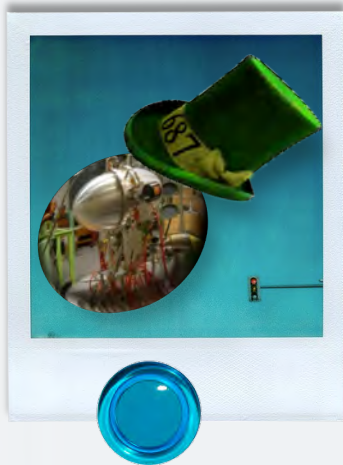


# Neutrons and Nuclei

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Andrea CHIETERA



CONTEXT: research on neutron emission in fission  
PURPOSE: direct proof of the dynamical effect and scission n  
SETUP: CODIS fission chamber and DEMON multidetector  
Methodology: n-n angular correlations;  
triple coincidence method F-N-n;  
GEANT4 simulations.

PhD student since 10/2012  
IPHC Strasbourg, France

Speakers  
Students  
Committee



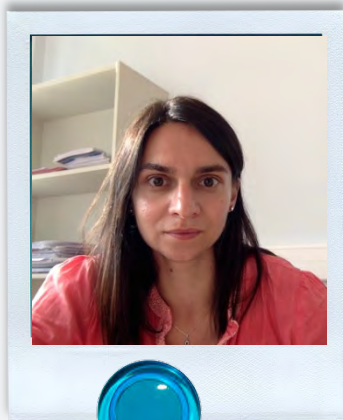


# Neutrons and Nuclei

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Iulia COMPANIS



The modelization of nucleosynthesis and compact stellar objects requires accurate knowledge of exotic nuclei and nuclear matter under extreme conditions. Thanks to recent progress in production techniques of exotic nuclei using new facilities such as SPIRAL 2, experiments that were previously impossible can be achieved. The development of a physics generator to simulate the results of such experiments is mandatory.

Postdoc

Institut de Physique Nucleaire de Lyon, France

Speakers  
Students  
Committee







# Neutrons and Nuclei

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Serge CZAJKOWSKI



Nuclear fission

Neutron capture & fission cross section measurements relative to innovative fuel cycle (Th-U) and minor actinide incineration

Staff researcher

CENBG CNRS/IN2P3 & Université de Bordeaux, France

Speakers  
Students  
Committee





# Neutrons and Nuclei

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Vishal DESAI



Measurement of neutron induced fission cross sections for unstable nuclei such as  $^{241}\text{Pu}$ ,  $^{239}\text{Np}$ ,  $^{240}\text{Np}$  and  $^{234}\text{Pa}$  using surrogate reaction methods.

Study of prompt fission neutron spectra and multiplicity in neutron and charged particle induced fission of  $^{232}\text{Th}$  and  $^{238}\text{U}$  nuclei.

PhD. student

Bhabha Atomic Research Centre (BARC), Mumbai, India

Speakers  
Students  
Committee





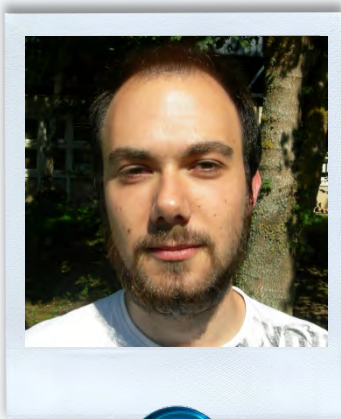


# Neutrons and Nuclei

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Quentin DESHAYES



My Ph. D. is based on the analysis of one part of the data taken during the SAMURAI DAY-ONE campaign. This campaign aimed to study the structure of light nuclei along the drip-line. More precisely I am studying the structure of the borromean nuclei  $^{19}\text{B}$  and  $^{22}\text{C}$ , as well as, the unbound sub-systems  $^{18}\text{B}$  and  $^{21}\text{C}$ .

PhD Student since September 2014

Laboratoire de Physique Corpusculaire de Caen, France

Speakers  
Students  
Committee





# Neutrons and Nuclei

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Philippe DESSAGNE



Neutron inelastic scattering studies in the context of the future nuclear reactor researches.

Senior researcher  
CNRS-IPHC, Strasbourg, France

Speakers  
Students  
Committee





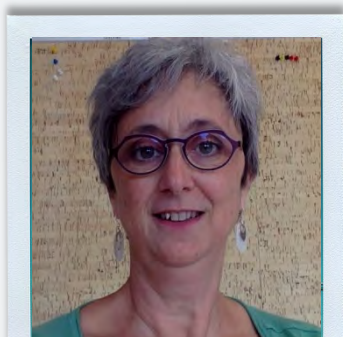


# Neutrons and Nuclei

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Diane DORÉ



I'm interested in the characterization of actinide fission fragments. For this purpose we are developing an experimental setup called FALSTAFF in order to perform experiments with rapid neutron beams.

Researcher (Organizer)  
Irfu, CEA/Saclay, France

Speakers  
Students  
Committee





# Neutrons and Nuclei

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Quentin DUCASSE



The surrogate-reaction is a method that enables to extract neutron-induced cross sections for nuclear reactions on short-lived nuclei that otherwise cannot be measured. The validity of this method is tested by comparing the cross sections measured for several actinides in a surrogate experiment with the cross sections measured in a conventional neutron induced reaction.

PhD student since 01/10/2012

CEA Cadarache / CENBG CNRS, France

Speakers  
Students  
Committee







# Neutrons and Nuclei

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Nataliia DZYSIUK



My primary research interest is in the field of experimental nuclear physics. I was involved with various projects related to: nuclear spectroscopy, nuclear reaction cross section measurements, neutron activation technique, neutron spectra generation, Monte Carlo modelling for experiment's optimization. Currently I'm working in Applied Nuclear Physics Division at Uppsala University designing a TOF spectrometer for neutron spectroscopy for fusion experiments.

Researcher

Taras Shevchenko National University of Kyiv, Ukraine

Uppsala University, Sweden

Speakers  
Students  
Committee





# Neutrons and Nuclei

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Dr. Imrich FABRY



PhD in Nuclear Physics 2003 at Bonn University. 2005-2010 research scientist at the Institute for Reference Materials and Measurements (IRMM) of the European Commission. Since 2010 project leader in nuclear industry. Work topics include: Measurements of the neutron-induced  $^{235}\text{U}$  prompt fission spectrum. Neutron experiments. Activation, criticality, burnup, shielding, Monte Carlo and neutron fluence calculations. 46 publications.

Project Leader Nuclear Physics

Member of the scientific selection board of the German Nuclear Society

Siempelkamp NIS Industriegesellschaft mbH, Germany

Speakers  
Students  
Committee





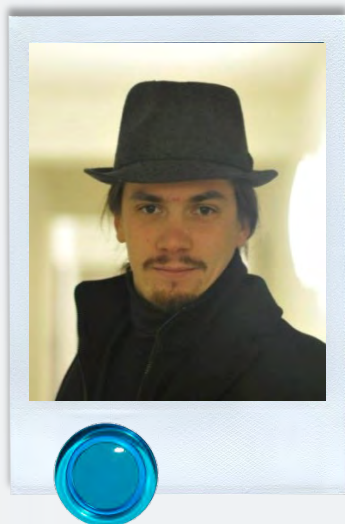


# Neutrons and Nuclei

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Marc Olivier FREGEAU



I work on the construction of the VERDI spectrometer. This apparatus will allow mass spectrometry of fission fragments with high resolution and high efficiency in neutron induced reactions. With the time of flight and the kinetic energy of both fragments it will be possible to measure the pre- and post-neutron mass of the fragments.

Postdoctoral fellow

European Commission , Joint Research Centre, IRMM, Geel, Belgium

Speakers  
Students  
Committee





# Neutrons and Nuclei

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Valérie FROIS



I'm in charge of communication department at the Institut de Physique Nucléaire, Orsay . The activities of the department also cover the area of internal and external scientific events (workshops , seminars, international conferences ) headed by the laboratory. I am involved for many years in several organizing committees of scientific events for the physic's community.

Secretary of Joliot-Curie School 2014

IPN Orsay, CNRS-IN2P3 / Paris Sud University, France

Speakers  
Students  
Committee



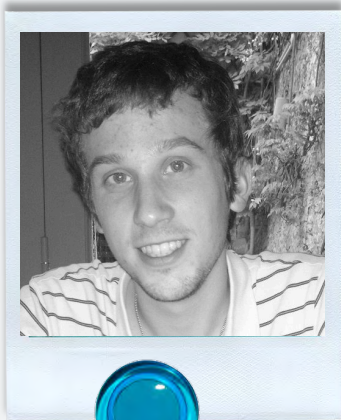


# Neutrons and Nuclei

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Bastien GALHAUT



My PhD project is to build a detector suitable to measure the reaction cross section of the  $^{16}\text{O}(n,\alpha)^{13}\text{C}$  reaction in the 2-20 MeV energy range with an accuracy better than 5 percent. The research group's project name is SCALP which depends on the LPC laboratory (Caen, France) in a collaboration with the EAMEA school (French Navy, Cherbourg-Octeville, France).

PhD Student (since January 2014).

EAMEA, Cherbourg, France

Speakers  
Students  
Committee





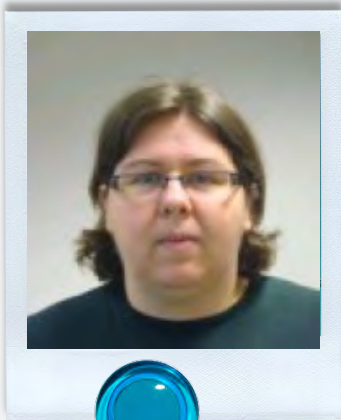


# Neutrons and Nuclei

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Lydie GIOT



I am part of the Double Chooz and SoLiD antineutrinos experiments where I contribute to develop the reactor simulations with the MURE code : MCNP Utility for Reactor Evolution. From this year, I start to work on decay heat calculations. Accurate estimates of the decay heat are needed for the design and safety analysis of Gen IV reactors.

Staff researcher (Organizer)

CNRS-IN2P3/SUBATECH Laboratory, Nantes, France

Speakers  
Students  
Committee



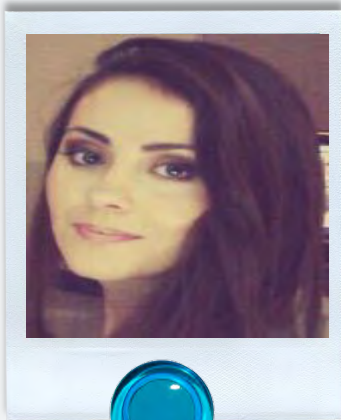


# Neutrons and Nuclei

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Georgiana GIUBEGA



For the last 2 years i have been working on the prompt emission in nuclear fission, the goal of my work beeing the development of the physical models and computer codes for prompt neutrons and gamma rays emission. I calculate different prompt emission quantities in the frame of the Point-by-Point model.

PhD student since October 2012  
University of Bucharest, Romania

Speakers  
Students  
Committee





# Neutrons and Nuclei

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Cédric GOLABEK



During my PHD in GANIL, my work was focused on the collision of heavy nuclei, especially the collision of two uranium nuclei at energy around the coulomb barrier. From that time, I work on the development or characterization of detectors of any kind of radioactivity.

Postdoctoral position  
CEA/IRFU in Saclay, France

Speakers  
Students  
Committee





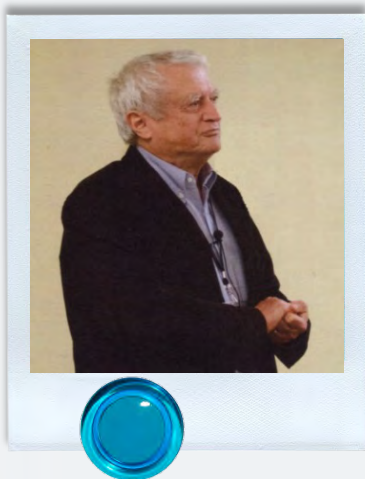


# Neutrons and Nuclei

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## Friedrich GÖNNENWEIN



Experimental studies in low energy fission: ternary and quaternary fission searching for the heaviest ternary particles; Cold fission of  $^{252}\text{Cf(sf)}$ ; Binary and ternary fission induced by polarized cold neutrons measuring parity violation and rotation of polarized nuclei; Search for anisotropic neutron emission in the CM of fragments.

Publications: « The Neutron » reviewing 35 years of nuclear research at the ILL/Grenoble.

Speaker

University of Tübingen, Germany

Speakers  
Students  
Committee



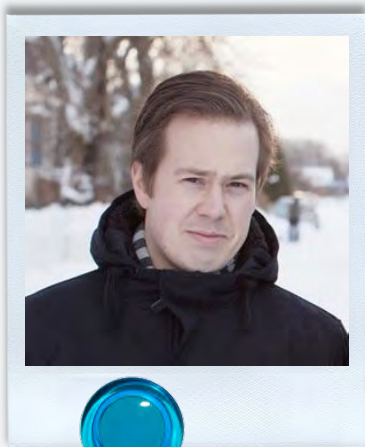


# Neutrons and Nuclei

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Alf GÖÖK



Currently works on experiments related to prompt neutron emission in fission. Main part of the work is devoted to setting up an array (SCINTIA) of liquid and plastic scintillators to be used in an experiment investigating prompt neutron emission in resonance neutron induced fission of  $^{235}\text{U}$ .

Postdoc

Joint research Centre (JRC), IRMM, Geel, Belgium

Speakers  
Students  
Committee





# Neutrons and Nuclei

September 28 - October 3, 2014  
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Carlos GUERRERO



I am an experimental nuclear physicist focused mainly on measuring neutron induced reactions relevant for nuclear technology and astrophysics. Most but not all of the experiments that I'm involved in take place at the CERN neutron time-of-flight facility n\_TOF. In my daily work I aim at getting involved in all phases of our experiments: detector development, running Monte Carlo simulations, working on producing appropriate targets and improving data analysis techniques.

Speaker

University of Sevilla (Spain) [@ CERN during 2014]

Speakers  
Students  
Committee





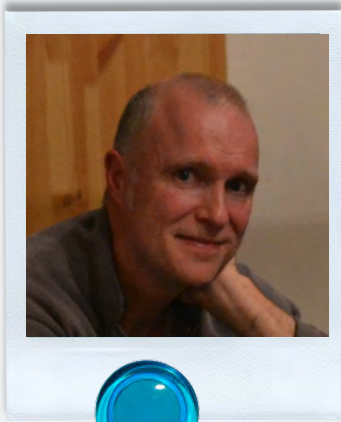


# Neutrons and Nuclei

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La Villa Clythia, Fréjus - France



Frank GUNSING



Working on nuclear data. Experimental work on neutron-induced reactions, neutron time-of-flight measurements and detector development. At present physics coordinator of the n\_TOF facility at CERN.

Speaker

Irfu, CEA/Saclay, on leave at CERN

Speakers  
Students  
Committee





# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Pierre HALIPRE



I work on the measurement of the prompt fission gamma-ray emission from fast neutron induced fission of uranium 235 and 238 and plutonium 239. Thanks to the new neutron source LICORNE at the IPNO, this kind of experiment is possible without shielding of gamma detectors and allows to place them very close to the target, giving a high geometrical efficiency.

PhD student since 2012

Institut de Physique Nucléaire d'Orsay, Université Paris-Sud, France

Speakers  
Students  
Committee



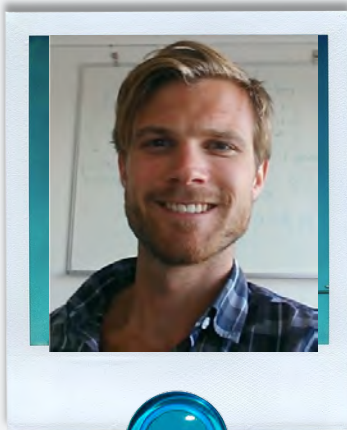


# Neutrons and Nuclei

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Petter HELGESSON



Working on quantification and propagation of nuclear data uncertainties using the so-called Total Monte Carlo methodology (TMC), based on sampling input parameters to the nuclear reactions code TALYS and related codes. Currently, my focus is to properly include experimental information in the methodology, striving towards reliable, flexible and reproducible uncertainty assessments in applications such as reactors and neutron shielding.

PhD student since August 2013

Uppsala University, Uppsala, Sweden

Speakers  
Students  
Committee





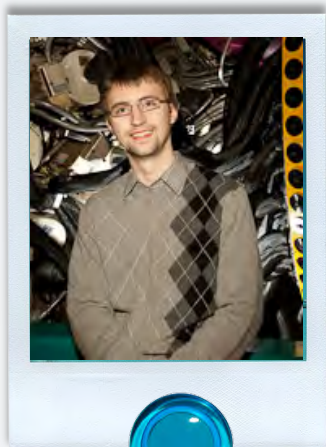


# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Greg HENNING



I measure neutron scattering cross section in actinides and other materials of interest for the design of nuclear reactors with gamma spectroscopy.

Postdoc at IPHC, Strasbourg, France

Speakers  
Students  
Committee





# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Stephane HILAIRE



Systematic investigation of the interplay between energy density functional approaches and nuclear reaction modeling.  
Connection with astrophysical r-process.  
Theoretical modeling of fission.  
Nuclear level densities.

Speaker  
CEA, DAM/DIF, France

Speakers  
Students  
Committee



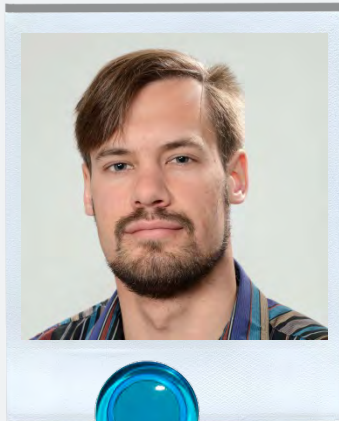


# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Kaj JANSSON



My main project is the measurement of the two standard cross-section reactions  $^{238}\text{U}(n,f)$  and  $\text{H}(n,n)$  relative to each other in the energy range 1-40 MeV. This will be done at the NFS-facility at GANIL in Caen. Simulations of the setup has been done using Geant4. I am also involved in analysing data from a  $^6\text{Li}(n,\alpha)$  vs  $^{238}\text{U}(n,f)$  measurement (two other standard cross-sections) taking place at the GELINA-facility.

PhD student since 2012

Uppsala University (Applied Nuclear Physics), Sweden

Speakers  
Students  
Committee







# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Arnd JUNGHANS



My research interest is fast neutron time-of-flight measurements especially of neutron-induced reactions of relevance for nuclear waste management strategies and safety. At the photo-neutron source nELBE using HZDR's superconducting electron accelerator we study neutron scattering, neutron-induced fission and total neutron cross sections.

Speaker  
Helmholtz-Zentrum Dresden-Rossendorf, Germany

Speakers  
Students  
Committee





# Neutrons and Nuclei

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Beatriz JURADO



I work on the determination of nuclear data for future nuclear reactor developments. I am particularly interested in the surrogate-reaction method, an indirect method for determining neutron-induced cross sections of short-lived nuclei, and in the modeling of the fission process.

Staff researcher (Organizer)

CENBG, France

Speakers  
Students  
Committee



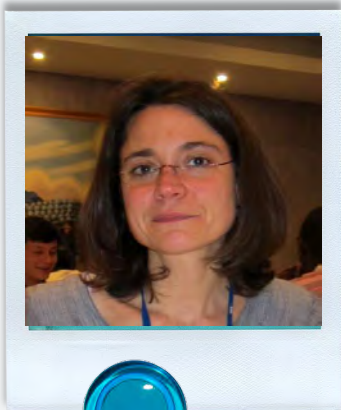


# Neutrons and Nuclei

September 28 - October 3, 2014  
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Maëlle KERVENO



Neutron inelastic scattering studies in the context of the future nuclear reactor researches.

Senior researcher  
CNRS-IPHC, Strasbourg, France

Speakers  
Students  
Committee





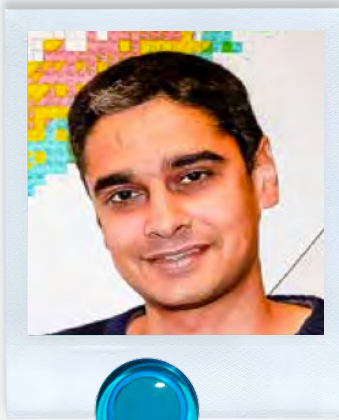


# Neutrons and Nuclei

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Elias KHAN



Theoretical and experimental approaches in nuclear structure :  
excitations in exotic nuclei, astrophysical applications, cluster  
states, etc.

Professor, Head of EJC school  
IPN Orsay, France

Speakers  
Students  
Committee



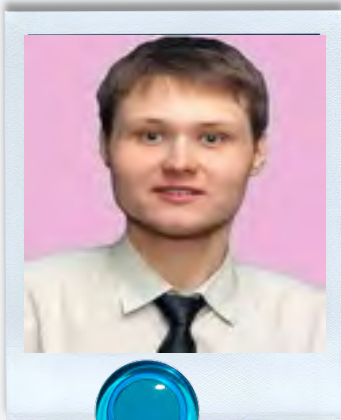


# Neutrons and Nuclei

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Dmitry KISLER



The work is dedicated to measurements of masses of exotic nuclides using the ISOLTRAP spectrometer at ISOLDE/CERN for studying fundamental laws of nature, e.g. nuclear structure, neutrino physics. One of the main goals of work is improvement of detection sensitivity of spectrometer by developing and implementing the novel phase imaging detection technique.

PhD student since Sep. 2013

Max-Planck-Institute for Nuclear Physics, Heidelberg, Germany

Speakers  
Students  
Committee





# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Toni KÖGLER



is a member of the Institute for Radiation Physics of the Helmholtz-Zentrum Dresden-Rossendorf. Since 2009 he is working in the nuclear physics department of Andreas Wagner and Arnd Junghans. In 2011 he received his diploma in physics for the work on linear alkyl benzene (LAB) based scintillators. Currently he is doing his PhD on fast neutron induced fission cross sections of minor actinides ( $^{242}\text{Pu}$ ). He is interested in transmutation, detector physics and electronics, but also in volleyball, athletics and skiing.

PhD student  
HZDR, Dresden, Germany

Speakers  
Students  
Committee





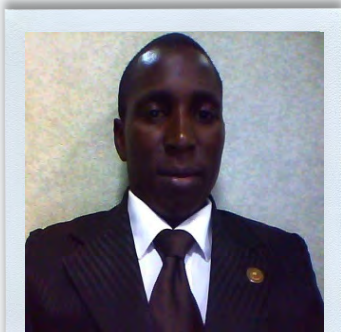


# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Bruno KUETCHE TAKOU



My research work concerns the study of the theory of collisions in particular the inverse problem which involves the construction of a potential interaction between two particles from cross sections of elastic collisions. This problem will be approached by analytical method of supersymmetric quantum mechanics as much as symbolic and numeric computation and applied to the data of elastic and inelastic collisions for the nucleon-hyperon system. These interactions are essential for modeling Hypernuclei using microscopic models.

PhD student since two years  
ULB, Brussels, Belgium

Speakers  
Students  
Committee





# Neutrons and Nuclei

September 28 - October 3, 2014  
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Benoit LAURENT



I'm a staff member of the « Bruyères Fission Team ». I'm working on several experimental programs such as fission fragments mass distribution measurements in induced neutron fission, nubar measurements, prompt fission neutron spectra measurements, inverse kinematic experiment on fission, cross-section measurements...

Researcher  
CEA, DAM/DIF, France

Speakers  
Students  
Committee





# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Sylvain LEBLOND



My Ph. D. is based on the analysis of one part of the data taken during the SAMURAI DAY-ONE campaign. This campaign aimed to study the structure of light nuclei along the drip-line. More precisely I am studying the structure of the borromean nuclei  $^{19}\text{B}$  and  $^{22}\text{C}$ , as well as, the unbound sub-systems  $^{18}\text{B}$  and  $^{21}\text{C}$ .

Ph.D. student since october 2012.

Laboratoire de Physique Corpusculaire de Caen, France

Speakers  
Students  
Committee







# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Xavier LEDOUX



I've been working at CEA since 1996 on several subjects: the spallation reactions, the  $(n, xn)$  reactions, the emission of delayed neutrons in the fission of actinides induced by neutron as well as in photofission. For several years I'm the spokesperson of the "Neutrons For Science" facility, one of the experimental areas of SPIRAL-2, under construction on the GANIL site at Caen.

Staff researcher (Organizer)  
GANIL, Caen, France

Speakers  
Students  
Committee





# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Grégory LEHAUT



My activities concern the nuclear reactor physics. My work consists in testing and developing some methods to extract on-line the reactivity of an Accelerator-Driven Systems reactor (coupling of a particle accelerator with a sub-critical fast reactor). The GUINEVERE experiment couples the fast lead sub-critical reactor VENUS-F with the deuteron accelerator GENEPI-3C and is installed at SCK-CEN in Mol, Belgium. These experiment are in the framework of the FREYA FP7 program.

Staff Researcher  
LPC Caen, France

Speakers  
Students  
Committee



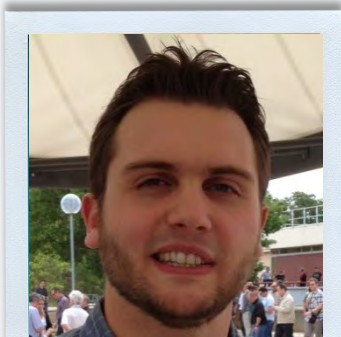


# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Matthieu LEMAIRE



My PhD research is focused on the topic of nuclear heating for Material-Testing Reactors (MTR). My goal is to establish a calculation method of neutron and photon heating for the Jules Horowitz Reactor (JHR), a MTR currently under construction in the South of France. Especially, the calculation bias and uncertainty of this method have to be ascertained in order to validate the calculation of nuclear heating for the JHR case.

PhD student (since November 2012)

CEA Cadarache, France

Speakers  
Students  
Committee







# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Jean-François LEMAITRE



I work on a new nuclear fission model named SPY. It models fission mechanism and determines nascent fission fragments characteristics like production rate, kinetic energy and excitation energy. It consists in a statistical description of the fission process at the scission point where fragments are completely defined and well separated with fixed properties. With SPY, we are able to calculate the properties of fragments for 3000 fissioning systems from  $Z=70$  to  $Z=109$  and from proton to neutron drip line.

PhD student (since November 2012)  
CEA/DAM/Ile-de-France

Speakers  
Students  
Committee





# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Francisco MANCHADO DE SOLA



Under the design for a superconducting gantry for proton therapy. The main objective of my study is to analyze the suitability of diamond as detector of neutron and proton in the field of medical physics, radiotherapy and more specifically in proton therapy. This study involves characterization and optimization of the diamond detector moreover the simulation of the complete nuclear interactions in the process.

PhD student since 2013. Medical physicist since 2011.

University of Huelva & Juan Ramón Jiménez Hospital, Spain

Speakers  
Students  
Committee





# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Loredana MANDUCI



I've been teaching nuclear physics at EAMEA since September 2005. I'm involved in the analysis of the reaction  $\text{Xe} + \text{Sn}$  @ 8 to 35 A.MeV incident energies measured with the INDRA multidetector at GANIL. Since January I started a collaboration (SCALP) with the LPC-CAEN for cross section measurements with a gas scintillating ion chamber for alpha production in neutron-induced reactions.

Professor  
EAMEA, Cherbourg, France

Speakers  
Students  
Committee





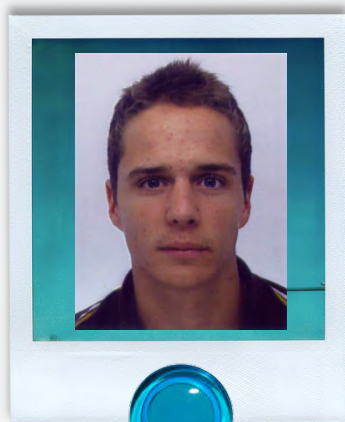


# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Guillaume MAQUART



Research area : Experimental signature of cluster existence in the  $^{212}\text{Po}$  nucleus. Some states with nonnatural parity are interpreted in terms of  $\alpha$ - $^{208}\text{Pb}$  structure. Theoretical interpretation

PhD student since now  
University of Lyon, France

Speakers  
Students  
Committee



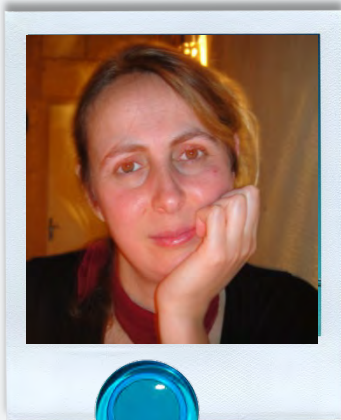


# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Paola MARINI



Nuclear data. Neutron induced reaction cross section measurements. Development of a recoil proton detector for neutron flux measurement in the 200keV-1MeV energy.

Postdoc

CENBG, Bordeaux, FRANCE

Speakers  
Students  
Committee



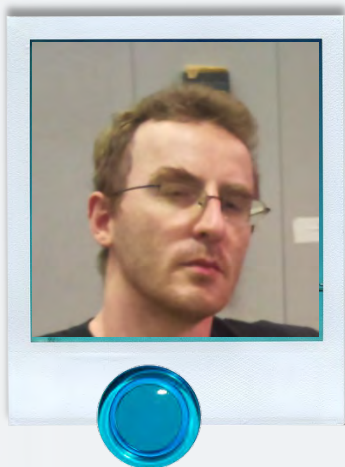


# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Ludovic MATHIEU



I work on capture and/or fission cross section measurements on actinides ( $^{233}\text{U}$ ,  $^{240}\text{Pu}$ ...). I use MCNP simulations to design experimental setup. Experiments are then carried out at IPN Orsay, Bruyère-le-Chatel or IRMM.

Researcher  
CENBG, Bordeaux, France

Speakers  
Students  
Committee





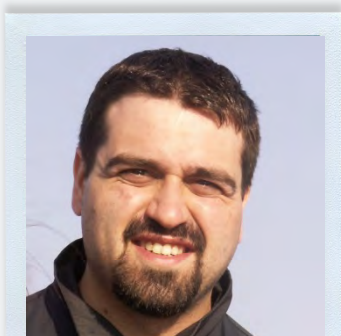


# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Simone MONTESANO



I am currently working in the technical coordination of two experiments, UA9 and n\_TOF. UA9 is an accelerator physics experiment. In n\_TOF I am in charge for preparing the experimental areas for experiments and for managing the detectors that belongs to the n\_TOF collaboration and are permanently staying at the facility.

Staff applied physicist  
CERN, Switzerland

Speakers  
Students  
Committee





# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Ralf NOLTE



My main field of work is neutron metrology. At the accelerator facilities of PTB and TLABS (South Africa) we provide neutron reference fields in the energy range from 24 keV to 200 MeV. These facilities are used for providing services to customers, in particular calibration of detectors for various applications, and for the measurement of nuclear data.

Speaker

Physikalisch-Technische Bundesanstalt, Braunschweig, Germany

Speakers  
Students  
Committee



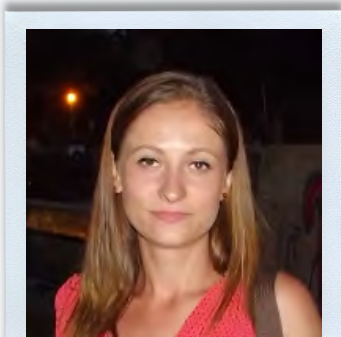


# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Adina-Adriana OLACEL



During the last two years my main activity was to analyze data from inelastic neutron scattering measurements and to prepare and perform two experiments for my PhD thesis. The experiments were conducted at EC-JRC-IRMM, where I was a trainee for 5 months. I also participated to summer schools and conferences.

PhD student (October 2012)

Horia Hulubei National Institute for Physics and Nuclear Engineering, University of Bucharest, Romania

Speakers  
Students  
Committee







# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Konstantin PROTASOV



The main interest is in physics of neutrons of very small energies – Ultra Cold Neutrons: production, storage, physical properties, and different studies with UCN. Recent publications are devoted to precise measurements in quantum systems with UCN: gravitationally bound states and quantum states appearing in scattering on a cylinder (whispering gallery effect). These systems represent a very good tool to search for additional interactions predicted by theories beyond the Standard model.

Speaker  
LPSC, Grenoble, France

Speakers  
Students  
Committee



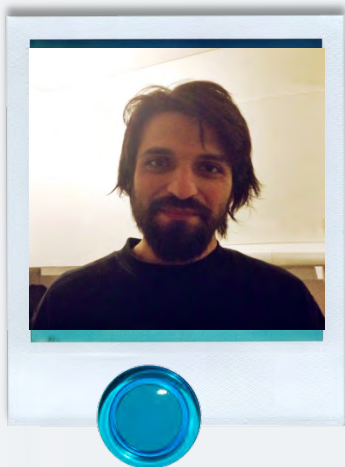


# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Vasilis RAKOPOULOS



My main scientific work concerns the measurements of neutron-induced independent fission yields of different actinides, using the ion guide and the Penning trap (JYFLTRAP), located at the University of Jyväskylä. In order to achieve this the fully characterisation of a new neutron converter target, which has been constructed at Uppsala University, is required.

PhD student (since 2012)  
Uppsala University, Sweden

Speakers  
Students  
Committee



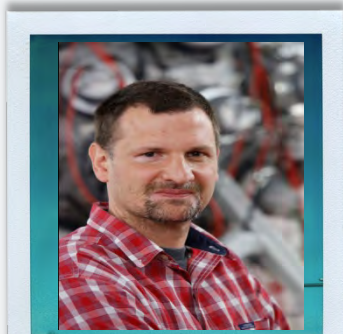


# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



## René REIFARTH



Experiments in nuclear astrophysics are my research focus, in particular the puzzle of the origin of the elements. Most elements were and still are produced during the different stages of stellar evolution. A detailed understanding of the nucleosynthesis processes allows deep insights into the stellar interiors, which are not possible otherwise. One of the requirements is the quantitative knowledge of a number of nuclear reactions under stellar conditions.

Speaker

Goethe Universität Frankfurt, Germany

Speakers  
Students  
Committee







# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Alix SARDET



The energy distribution of neutrons emitted during the fission process play an important role for reliable predictions of the behaviour of nuclear systems but also for an accurate modelling of the fission process. However, few experimental data are available and the precision of our current knowledge of this observable is far less good than that of other fission observables.

PhD student since October 2012

CEA/DAM/Ile-de-France

Speakers  
Students  
Committee





# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Claude SEMAY



Quasiparticle approaches for quark-gluon

Professor (Organize)  
Mons University, Belgium

Speakers  
Students  
Committee



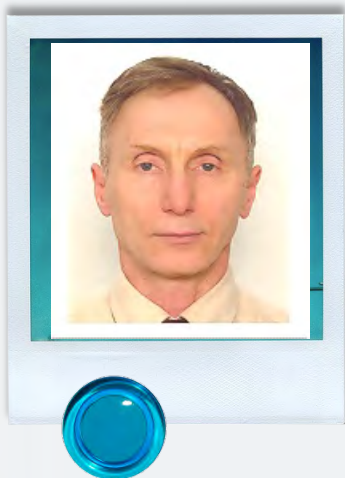


# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Stanislav SIMAKOV



The Nuclear Data Service Unit of the Nuclear Data Section of IAEA in Vienna and I, as a Unit Head, are responsible for collection and provision of nuclear reaction and other relevant data, documentations and software needed for the fundamental research and nuclear applications to the IAEA Member States. One of our task is a coordination of the Network of National Nuclear Reaction Data Centres to compile in EXFOR and disseminate experimental nuclear reaction data. We organize Workshops, Meetings and Coordinated Research Projects to develop and distribute various databases which should serve as references.

Speaker  
IAEA, Vienna, Austria

Speakers  
Students  
Committee







# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Patrick TALOU



My work interests span nuclear reaction theories, quantum physics, nuclear data evaluations, and Bayesian statistical analysis. I have been specializing more and more in the study of the nuclear fission process in all its complexity and beauty, through the modeling and analysis of fission cross sections, fission fragment yields, prompt fission neutrons and photons, etc.

Speaker

Los Alamos National Laboratory, USA

Speakers  
Students  
Committee





# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Pierre TAMAGNO



I am proceeding to the evaluation of fission cross sections of actinides based on advanced models in order to provide accurate data and related covariances. These models tends to take into account a more realistic shape of the fission barrier (potential energy felt by the nucleus while fissioning), and are expected to reproduced features observed in the experimental cross sections in the statistical range.

PhD student since 2012.  
CEA Cadarache, France

Speakers  
Students  
Committee





# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Nicholas TERRANOVA



Currently at CEA for an internship, my work is mainly focused on the evaluation of nuclear data of interest for the Jules Horowitz Reactor uncertainty analysis of core parameters. One of the principal tasks of this work is the development of new covariance generation strategies for mass, isotopic and isomeric fission product yields using semi-empirical models and deterministic covariance estimation methodologies.

PhD student (since January 2013)

University of Bologna, Italy

Speakers  
Students  
Committee







# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Loïc THULLIEZ



I am working on the experimental setup FALSTAFF, which aim is to provide data for new nuclear reactor design and for testing nuclear models.

The setup will characterize fission fragments of different actinides in the 100 keV-MeV energy range. Fragment masses (before and after neutron evaporation), neutron multiplicities, kinetic energies and charges will be identified. These observables are accessible in performing time-of-flight measurements and energy measurements.

PhD student since September 2014.

CEA-Saclay, France

Speakers  
Students  
Committee





# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Jean TOMMASI



Validation of calculation tools modeling the neutron transport equation and of the associated nuclear data (cross-sections) sets on experiments performed in critical zero power reactors such as MASURCA (France), ZPR/ZPPR (USA), BFS (Russia). These experiments, some of which are being performed currently, aim at representing the specific design features of Generation-IV sodium-cooled fast reactors in standard or degraded conditions.

Staff researcher  
CEA-Cadarache, France

Speakers  
Students  
Committee





# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Christina WEISS



Currently involved in the commissioning of both experimental areas (measurement of neutron fluence, beam profile, resolution function, background situation with different detection systems).

During my PhD at n\_TOF, I build a large-area diamond detector for  $(n, \alpha)$  cross-section measurements, which was used to measure the  $^{59}\text{Ni}(n, \alpha)^{56}\text{Fe}$  cross-section in 2012.

Postdoc at the n\_TOF experiment since 09/2013.

CERN, Switzerland

Speakers  
Students  
Committee







# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Lukas ZAVORKA



Studying for PhD at the Czech Technical University in the historical city of a hundred spires on Vltava river in Bohemia since 2010 and performing experiments at the town of Dubna, where the most admired monument is the sixty-year-old proton accelerator, I strive to investigate a concept of Relativistic Nuclear Technology –a system for energy production and spent nuclear fuel transmutation in the field of fast neutrons reaching hundreds-of-MeV and GeV energies.

PhD student  
Czech Technical University, Czech Republic

Speakers  
Students  
Committee





# Neutrons and Nuclei

September 28 - October 3, 2014  
La Villa Clythia, Fréjus - France



Miroslav ZBORIL



I'm developing neutron spectrometers for fusion plasma diagnostics based on single crystal diamond detectors. The goal of the project is to fully characterize diamond's response to neutrons (via measurements and simulations) and to construct a response matrix usable for fusion diagnostics. I also investigate the radiation hardness of diamond detectors to neutrons and charged particles.

Postdoc

Physikalisch-Technische Bundesanstalt Braunschweig, Germany

Speakers  
Students  
Committee

