



News from NuPECC

www.nupecc.org

E. Widmann

Deputy chair, NuPECC

Stefan Meyer Institute, Vienna

FAKT Workshop, Bruck a. . Mur, 24 – 25 Feb 2022

What is NuPECC

2018: 30 years

1.1 WHAT IS NuPECC?

The Nuclear Physics European Collaboration Committee is an Expert Committee of the European Science Foundation established in 1988.

The objective of NuPECC is to:

- develop the strategy for European Collaboration in nuclear science by supporting collaborative ventures between research groups within Europe, and
- promote nuclear physics and its trans-disciplinary use in applications for societal benefit.

In pursuing this objective the Committee shall:

- **provide advice** and make strategic recommendations to funding agencies and decision-making bodies;
- **define a network** of complementary facilities within Europe and encourage optimisation of their usage;
- **provide a forum** for the discussion of the provision of future facilities and instrumentation;
- **contribute to public** education and awareness.

The current 27 members from 21 European countries, 4 ESFRI-list nuclear physics facilities and JINR Dubna and 3 associated members of the Committee are indicated in the following figure (a detailed list can be found at <http://www.nupecc.org/?display=staff/list>):



NuPECC members and associated members

RESEARCH INFRASTRUCTURES AND NETWORKING

Collaborations & Synergies

T HADRON PHYSICS

H STRONGLY INTERACTING MATTER

E NUCLEAR STRUCTURE & REACTIONS

O NUCLEAR ASTROPHYSICS

R SYMMETRIES & FUNDAMENTAL INTERACTIONS

Y APPLICATIONS

Nuclear medicine perspective

SPECT
PET
Therapy

Emerging isotopes where next-generation RIB facilities can contribute significant supply

Nuclear Data

DIFFERENTIAL MEASUREMENTS
THEORY
INTEGRAL MEASUREMENTS

NEW EVALUATION

EVALUATION → EVALUATED DATA FILES

RESEARCH LABORATORIES
INDUSTRY, SAFETY COMMITTEES

Hydrogen H

proton
electron

Antihydrogen

anti-proton
positron

panda

ALICE

QUARKS & GLUONS

HADRONS

ATOMIC NUCLEI
NEUTRON STARS

Lattice Effective Field Theory

Equation of state

Fission dynamics

1p, 2p radioactivity

ν - π pairing

Coupling to continuum

Neutron halos

Clusters

Shape Coexistence

Limits of existence

New magic numbers

Exotic Shapes

AGATA

527 ms

Isosurfaces: Entropy/Nucleon
Colors: Radial Velocity
1e9 cm/s

Proton Number vs Neutron Number

$\log_{10} |\Delta Y_i|$

Recent developments

- Chair: M. Lewitowicz, GANIL
EW Deputy Chair since 2018
- Task force meetings with funding
agencies w/ ESFRI facilities
- New (associated) members/ observers
 - Slovakia, Slovenia, FAIR, SPIRAL2,
MYRRA, IFMIC-DONES
 - IAEA, ECFA, APPEC
 - iThemba Labs, RIKEN NISHINA
Center, Israel
- Support for conferences



Other

- Nuclear Physics News
 - Free distribution, send email to sissy.koerner@ph.tum.de
 - World wide distribution
 - Similar to CERN Courier



Contacts to ECFA & APPEC



JENAS-2019
Joint ECFA-NuPECC-ApPEC Seminar
jointly organized by LAL, IPNO, IRFU and LPNHE

October 14-16, 2019
Auditorium Pierre Lehmann, bât. 200, Faculté d'Orsay

ECFA-NuPECC-ApPEC Organizing Board

ECFA
Jorgen D'Hondt, IIHE/Vrije Universiteit Brussel
Manfred Krammer, CERN
Carlos Lacasta, IFIC/CSIC-Universitat de València

NuPECC
Angela Bracco, INFN Milano/Università di Milano
Marek Lewitowicz, GANIL
Eberhard Widmann, Stefan-Meyer-Institut für subatomare Physik der ÖAW/Universität Wien

ApPEC
Stan Bentvelsen, Nikhef
Antonio Masiero, INFN
Teresa Montaruli, University of Geneva

Local Organizing Committee
G. BERNARDI, LPNHE
D. BOUY, LAL
C. BOURGE, LAL
V. BROUILLEAU, LAL
F. CAVALIERI, LAL
V. FROIS, IPNO
M. GUILLET, IPNO
A. KORICHI, CSNSM
G. MARCHIORI, LPNHE
N. PALANQUE-DELABROUILLE, IRFU
F. SABATIE, IRFU
G. WORMSER, LAL (chair)

Logos: ECFA, NuPECC, APPEC, CNRS, Université de Valence, Université de Caen, IPN, LPNHE, IRFU, CERN



JENAS-2022
2nd Joint ECFA-NuPECC-APPEC Seminar
Exploring synergies between Particle, Astroparticle and Nuclear Physics

May 3-6, 2022
Madrid, Spain

TOPICS:

- Physics highlights
- Future projects and overall strategies
- Detector technologies
- Computing and software
- Diversity and recognition
- Education and Outreach
- Transfer of knowledge

QR code

JENAS 2022 Committee

ECFA: Karl Jakobs (Univ. Freiburg)
Patricia Conde Muño (LIP, Lisboa)
Jorgen D'Hondt (VUB, Brussels)

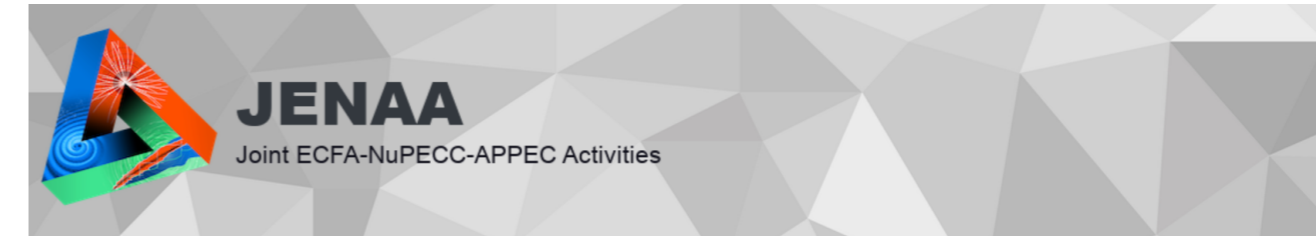
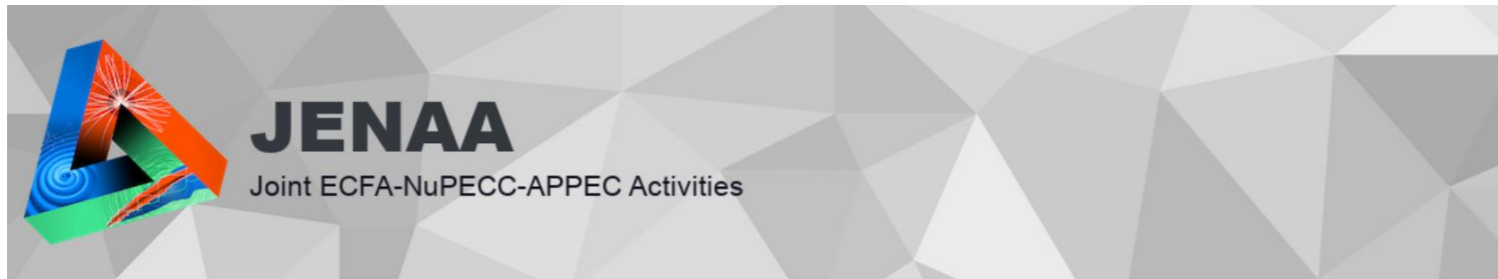
APPEC: Andreas Haungs (KIT, Karlsruhe)
Katharina Henjes-Kunst (DESY, Hamburg)
Teresa Montaruli (Univ. Geneva)

NuPECC: Marek Lewitowicz (GANIL, Caen)
Eberhard Widmann (SMI, Wien)
Gabriele-Elisabeth Körner (NuPECC)

Local Committee

Maria José García Borge (IEM, Madrid)
Antonio Bueno (UGR, Granada)
Carlos Peña Garay (LSC, Canfranc)
Joaquín Gómez Camacho (CNA, Seville)
Celso Martínez Rivero (IFCA, Santander)
Luis Mario Fraile (UCM, Madrid)

Logos: ECFA, NuPECC, APPEC



JENAS Expressions of Interest








List of submitted EoI:

1. Dark Matter - iDMEu (<https://indico.cern.ch/event/869195/overview>)
2. Gravitational Waves for fundamental physics (<https://agenda.infn.it/event/22947/overview>)
3. Machine-Learning Optimized Design of Experiments - MODE (<https://userswww.pd.infn.it/~dorigo/MODE.html>)
4. Nuclear Physics at the LHC (<https://indico.ph.tum.de/event/4492/>)
5. Storage Rings for the Search of Charged-Particle Electric Dipole Moments (EDM) (<https://indico.ph.tum.de/event/4482/overview>)
6. Synergies between the Electron-Ion Collider and the Large Hadron Collider experiments (<https://indico.ph.tum.de/event/7004/>)









EoIs in the form of a brief letter are to be submitted to the chairs of the committees/consortia. In the letter you can elaborate on the synergy topic, the objectives, the initial thoughts and the potential communities involved. This letter is not the end of the process, but potentially the start of further communications on the expressed interest.

JENAS EoI Task Force representatives


For ECFA:

- Peter Levai (2) 
- Isabell Melzer-Pellmann (1) 
- Nick van Remortel (2) 
- Mike Seidel (5) 
- Marek Tasevsky (3) 
- Claude Vallee (1) 
- Mikko Voutilainen (3) 

For NuPECC:

- Navin Alahari (4) 
- Dave Ireland (6) 
- Eugenio Nappi (6) 
- Franck Sabatié (3,6) 
- Boris Sharkov (1,2) 
- Hans Stroehrer (5) 
- Eberhard Widmann (5) 
- György Wolf (2,4) 

For APPEC:

- Jo van den Brandt (2) 
- Jürgen Brunner (3) 
- Tomek Bulik (2) 
- Francesca Calore (1) 
- Fiorenza Donato (4) 
- Elena Cuoco (3) 
- Uwe Oberlack (1) 
- Xin Wu (4) 

JENAS EoI Meetings

- [Kick-off Meeting](#), all EoIs, August 26, 2020
Individual Kick-off Meetings:
- [Kick-off Meeting](#), EoI 1, September 23, 2020, 10 - 12 h
- [Kick-off Meeting](#), EoI 2, September 22, 2020, 10 - 12 h
- [Kick-off Meeting](#), EoI 3, September 15, 2020, 14 - 16 h
- [Kick-off Meeting](#), EoI 4, October 2, 2020, 9 - 11 h
- [Kick-off Meeting](#), EoI 5, September 25, 2020, 14 - 16 h

Diversity Working Group

ECFA, NuPECC and APPEC recognise the importance of diversity as a motor to boost productivity and innovation, fight prejudice and discrimination and contribute to the improvement of social and economical standards.

The three organisations joined together to propose a [Diversity Charter](#) to be signed by research organisations, collaborations and conferences within the fields of Particle Physics, Nuclear Physics and Astroparticle Physics, who value diversity and commit to promote equal opportunities at all levels.



In a first phase, diversity within the different signatories will be [monitored](#). To simplify the task of monitoring for all partners involved, a survey has been made available to be filled out on a voluntary and anonymous basis by affiliated people and participants to the signatories. Initially, just a few basic variables are proposed for data collection in order to simplify privacy issues. If any signatory entity prefers to monitor the data itself, it is free to use any other method and just communicate the results of its analysis.

The three consortia have already started their activities on this issue by asking large collaborations, namely those with more than 40 members to participate in the survey by having their members fill out the questionnaire prepared by the working group, so that one can have a good picture of diversity among collaborations. Due to the COVID-19 pandemic, no conferences are presently being organized. Hence, the part of our study having to do with conferences will be performed in the near future, after the restrictions are lifted.




The ECFA-NuPECC-APPEC Diversity Charter can be found [here](#). Additional information about the Diversity Monitoring can be found [here](#). The relevant surveys can be found [here](#) for Collaborations, [here](#) for Organisations and [here](#) for Conferences.

Diversity WG members



From ECFA:

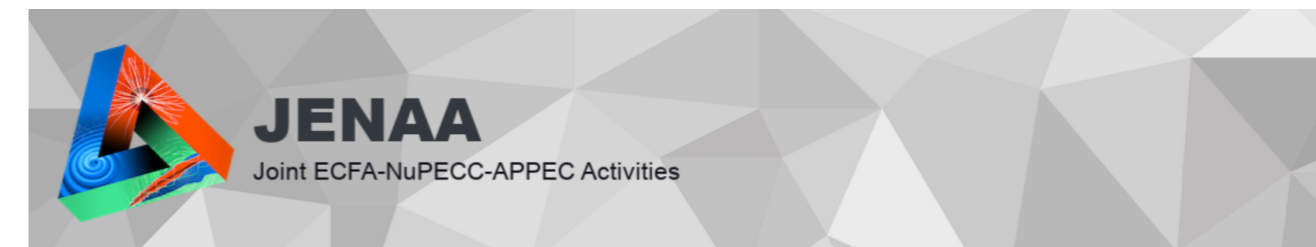
- Patricia Conde Muñio 
- Nadia Pastrone 

From NuPECC:

- Jens Jørgen Gaardhøje 
- Nasser Kalantar-Nayestanaki 
- Jochen Wambach 

From APPEC:

- Andreas Haungs 
- Katharina Henjes-Kunst 



Recognition Working Group

The aim of this ECFA-NuPECC-APPEC working group is to find ways to improve the recognition of individual achievements in large collaborations.

- Key objectives of this working group:
 - create awareness,
 - initiate discussions inside collaborations,
 - exchange and discuss best practices among all three communities, and reflect on alternative or additional procedures,
 - potentially perform a second survey in 2020-2021 to monitor the progress on the topic,
 - however, the group will not be an ombuds-committee for individual problems.
- Report back to ECFA-NuPECC-APPEC
- The collaborations remain themselves responsible for the actions of the working group and to implement (or not) recommendations

The working group was installed in July 2019 in Ghent. It continues previous work by ECFA, which among other activities performed a community-wide [survey in 2018](#).

Long Range Plan

- Hadron Physics
- Phases of Strongly Interacting Matter
- Nuclear Structure and Dynamics
- Nuclear Astrophysics
- Symmetries and Fundamental Interaction
- Applications and Societal Benefits.

1991, 1997, 2004, 2010, 2017, **2024**

Community input by end of June 2022

