



News of the ISOLDE Group

7th of February 2017

Maria J. G. Borge



Outline

- Associates, Fellows and Students
- Courses and activities 2017
- Focus on Exotic beams at ISOLDE: A Laboratory portrait.
- Long Range Plan
- ENSAR2
- Collaboration matters

Associates & Corresponding Associates & staff

- Associates (9th March 2017)
 - Bertram Blank (Sep 2016 – August 2017)
 - Angela Bracco (Feb – July 2017)
 - Andrei Andreyev (April 2017 – March 2018)
 - Strong candidates
- Corresponding Associates (9th March 2017)
 - Joao Pedro Steves De Araujo (2 months, Jan-Feb 2017)
 - Olof Tengblad (Feb-May 2017)
- Staff members :
 - Magda Kowlaska (Oct 2015 – Sep 2018) **ERC betaDropNMR**
 - Stephan Ettenbauer (Feb 2017-Jan2021) **ERC MIRACLS**
- ISOLDE User Support:
 - Jennifer Weterings (2002 -)

Fellows & Associates & Corresponding Associates

● Fellows: (28th of February 2017)

- ✓ Liam Gaffney (Oct 2016 – Sep 2019)
 - ✓ Kara Lynch (Jan 2015 – **Dec 2017**)
 - ✓ Vladimir Manea (Jan2016 – **Dec 2017**)
 - ✓ Akira Miyazaki (June 2014- April 2017, SC cavities → Manchester Contract)
 - ✓ Lina Pallada (Applied Fellow, April 2017-, ERC)
 - ✓ Andree Welker (June 2017 -) (Applied Fellow, setting zero-spectrometer)
 - ✓ Frank Wienholtz (Jan2016 – Dec2018) (Applied Fellow, ERC)
- Hope to get another Fellow in next call
- Need of excellent candidates!

And many other paid by their home institution.

Doctoral Students

- **Doctoral student**

- CERN Doctoral Student for IDS:

- Razvan Lica (Sep2014 – August 2017)

- Doctoral Program for life sciences (50% GR, 33% CERN, 11% Madga's ERC)

- Stavroula Pallada (March 2014 - Feb 2017), Biophysics

- Doctoral Program with Germany

- Andree Werkens (Feb 2015-Jan2018) ISOLTRAP

- Doctoral student York-CERN (ERC)

- Rob Harding (presently covered by U. York)

- Doctoral student Lund - CERN

- Jacob Snall (August 2016 - Jun2019) HIE-ISOLDE Physics + zero spectrometer

- And many other paid by their home institution.

Workshops / News

Courses

➤ Nuclear astrophysics 9-11 of May

➤ Given by: Francois de Oliveira

Gabriel Martinez Pinedo

Olivier Sorlin

NuPECC meeting @ CERN : 10-11 of March

Mini-workshop

Friday Morning opening by Eckhard Else

Visits to ALICE and ISOLDE

Workshop & conferences

➤ Next ISOLDE Workshop: 4-6 December 2017

➤ First meetings for EMIS 2018

 Call for the Newsletter already launched, **deadline 28 Feb 2017**

ISOLDE Laboratory Portrait

- Title: “Focus on exotic beams at ISOLDE: A laboratory Portrait ”
- To be publish in J Phys G in 2017
- Content planned:
 - Experimental facilities and methods (on invitation). 15-20 pages
 - 16 invited papers
 - 3 invited contributions by theoreticians: A, Schrenk, A. Poves , J. Dobaczewski
 - Articles by submission: expected 15 contributions
- Content: 5 already fully accepted!!
 - Experimental facilities and methods
 - ✓ 14 received and 4 pending to be received
 - invited contributions by theoreticians
 - ✓ 2 received and 1 pending.
 - Articles by submission:
 - ✓ 11 contributions received:
- Contact person in IOP **Claire Fullarton**: Claire.fullarton@iop.org

Coordinator: Muhsin N. Harakeh

Deputy Coordinator: Marek Lewitowicz

Manager: Ketel Turzó

Financial Officer: Veronique Vandevoorde

Administrative Officer: Sandrine Dubromel

Executive Board of PCC (first meeting 13th /10/2016)

TNAs: Maria G. Borge

Ari Jokinen

NAs: Andres Gadea

Olaf Tengblad

JRAs: Sylvia M. Lenzi

Christoph Scheidenberger

TNA

GANIL-SPIRAL2 (France)

- LNL-LNS (INFN, Italy)
- ISOLDE (CERN, Switzerland)
- JYFL (Finland)
- ALTO (CNRS, France)
- GSI (Germany)
- KVI-CART (The Netherlands)
- NLC (HIL/IFJ PAN, Poland)
- IFIN-HH/ELI-NP (Romania)
- ECT* (Italy)

NA

- FISCO,
- NUSPRA (Ch Scheidenberger), MIDAS (H. Koivisto), NUSPIN (S. Lenzi), MediNet (P. Thirolf & G. Magrin), GDS (Grinyer), ENSAFF (S. Harisopoulos), NuPIA (Nuclear phys Innovation)

JRA

➤ **PASPAG: Particle and gamma detection Olof Tengblad**

- PSeGe: AGATA detector + applications (Andres Gadea)
- TheoS: Theory of Nuclear Structure & Reactions (Denis Lacroix)
- **RESIST: Resonant ionisation techniques for separators (Ian Moore)**
- SATNuRSE: Simulations and analysis tools (Nasser Kalantar)
- **EURISOL facility (all stages)**

Yorick Blumenfeld

- **TecHIBA: Stable ion beams + medical isotopes (Faïçal Azaiez)**

ENSAR2 @ CERN

- RILIS (V. Fedoseev) @ JRA **RESIST** 70.000 → (56.000) **60.200 euros**
- Target R&D (T. Stora) @ JRA **EURISOL** 112.000 → (89.600) **96. 320 euros**
- EBIS (F. Wenander) @ JRA **EURISOL** 39.000 → (31.200) 33.540 euros
- Chamber for irradiation (K. Johnston) @ JRA **TECHIBA** 42.500 → 34.000 euros
- Representative in **MediNet** (Manjit Dosanjh) → 6000 euros
- TNA ISOLDE: Users support 324.495 → (279.066) **259.596 euros**
 - ✓ Access cost 387.504 → **310.003 CHF**
 - **1+1/2 Year post-doc 2018 to design the MR-ToF for ISOLDE**
 - **A shared technician with EN. Help to cope with the safety regulations and with the higher complexity of the Facility. Project to be defined**

- Selection committee:

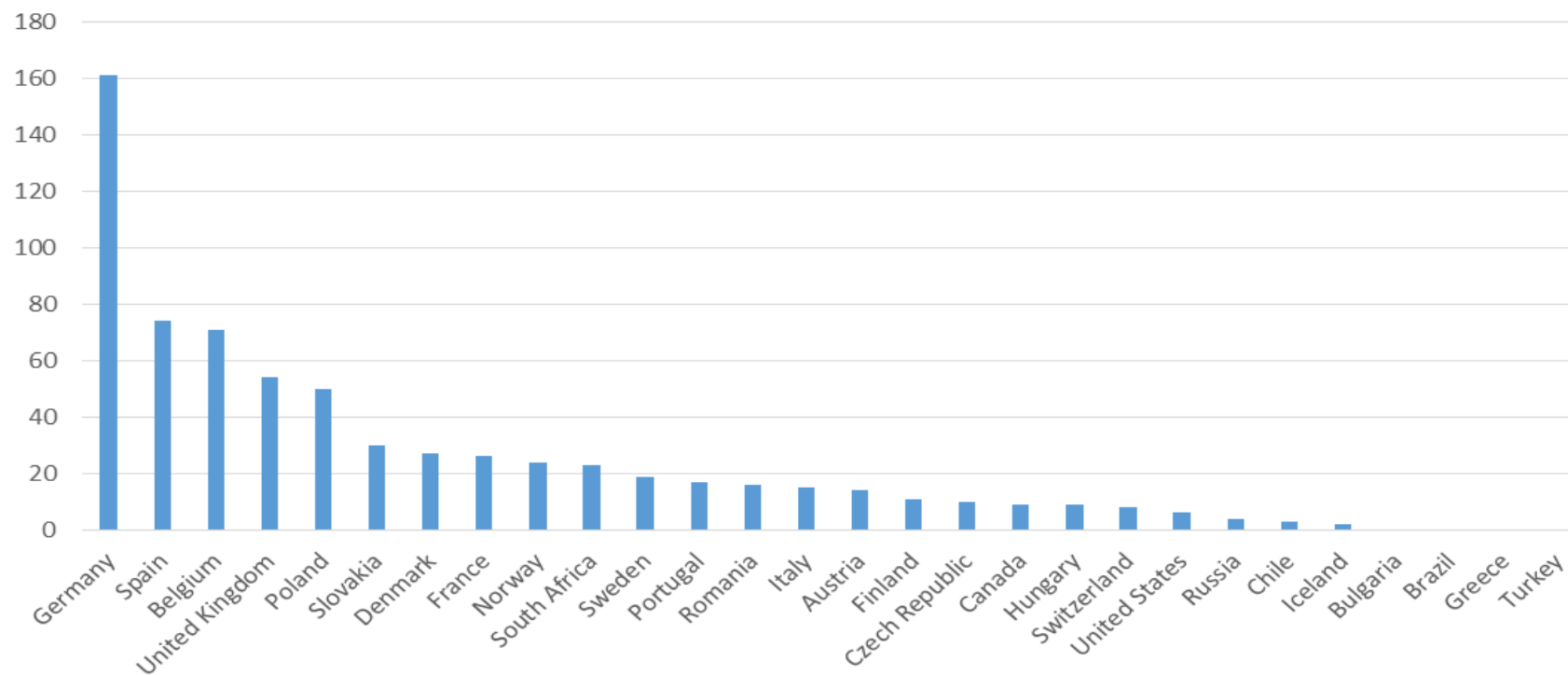
B. Blank, K. Riisager, K. Blaum, P. Van Duppen, M.J. Garcia Borge, K. Johnston, J. Schell.

- Three meetings: 21 / 3 / 2016, 6 / 6 / 2016 and 25 / 7 / 2016

- 40 projects received support in 2016
- Total awarded days : 732 days to 3208 scheduled beam hours.
- **588 days** already paid corresponding to 71088 CHF
- Total days of the teams at ISOLDE : 4517
- Total days requested 1893
- Total days approved 688
- Total days paid 683
- Total expenditure 87288(*) /(T=259.596)

(*) Allowance reduced from 138 CHF to 120 CHF due to overheads

ENSAR2 distribution of subsistence days for 2016



NuPECC News: Long Range Plan

- The Nuclear Physics European Collaboration Committee has been working in the preparation of a new Long Range Plan for Nuclear Science in Europe.
- 6 chapters have been identified as in the editions of 2004 and 2010.
 - 1. **Hadron Physics.** *Diego Bettoni (Ferrara) + Hartmut Wittig (Mainz)*
 - 2. **Properties of strong-interacting Matter** (Silvia Masciocchi & Francois Gelis)
 - 3. **Nuclear Structure and Reaction Dynamics** (Elias Khan & John Simpson)
 - 4. **Nuclear Astrophysics** (Gabriel Martinez-Pinedo & Alison Laird)
 - 5. **Symmetries and Fundamental Interactions** (Klaus Blaum & K. Kirch)
 - 6. **Applications and societal benefits** (Marco Durante & Alain Letourneau)
- **The town meeting in Darmstadt 11 -13 of January 2017.**
- Recommendations: **Strong support to construction and augmentation of innovative ISOL facilities in Europe.**
- The urgent completion of the ESFRI facility SPIRAL2 along with SPES and with the energy and intensity upgrade of HIE-ISOLDE (with the combined storage ring) will consolidate the leading role of Europe in the physics of nuclei far from stability.
- Strong support to the EURISOL-DF new initiative, a collaborative effort of the above mentioned facilities and future partners which aims to maximize the common efforts to solve the associated scientific and technical challenges. The combined exploitation of beam and devices as well as joint R&D projects are crucial for a comprehensive understanding of open questions in the field.

MoU

- New MoU effective from January 2017 until 2019.

As it will have automatic renewal we consider important to reduce the period to facilitate the compromise and the update of annexes.

- In the New MoU India and Ireland are not members.

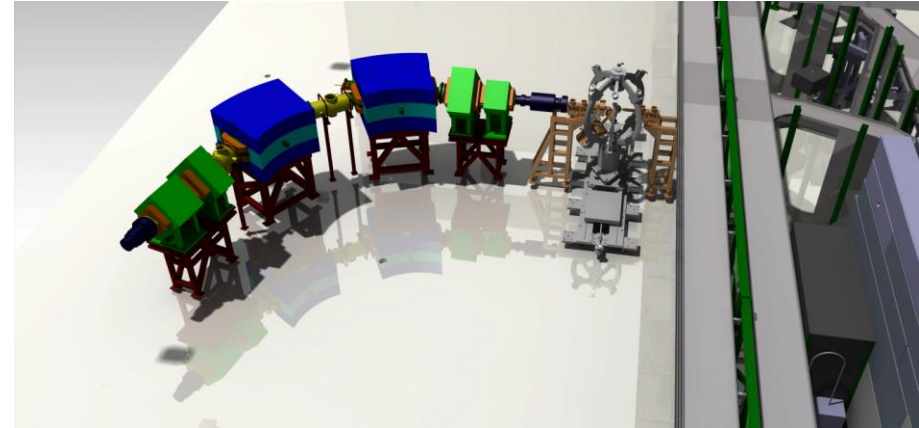
- Bulgaria and Portugal in the pipeline.

- Request from Holland

- Many countries has already signed the MoU (12/16):
Belgium, CERN, Denmark, Finland, France, Germany, Poland, Romania, Slovakia, South Africa, Sweden and UK.

Request from Holland

- Donation of the TRI μ P from KVI → in the process to sign an agreement
This zero-degree spectrometer is planned to be placed after Miniball



- The fundamental interactions and Symmetry group of U Groningen (L. Willmann and K. Jungmann) are very interested in preparing a setup to do measurements related to atomic parity violation. [A letter of intend was submitted in may 2010 \(INTC-I-115\)](#)
- They show now renew interest and hope due to their investment at ISOLDE to get an equivalent status to a collaboration member to access to the service of the Facility.

Collaboration Budget

● Healthy situation

- Started paying 140 kCHF of 1st loan + 400 kCHF (2nd loan to be signed).
- Greece paid 2012 in 2016 and secure the funds until 2014.
- Pending : Norway (60 KCHF), Greece (120 kCHF) and Poland (30KCHF)

Foreseen expenditure for 2017 (expected income: 870 kCHF)

● HIE-ISOLDE 2017	540.000 CHF
● User Support 2017	35.000 →
● Euroscool on exotic beams 3000 Euros	3.300
● MINIBALL 3000 Euros	3.300
● LN2	60.000
● A. Miyazaki (HIE-ISOLDE)	23.200
● RILIS Man power	45.000
● Students	<u>25.000</u>

734.800 CHF