

# News of the Group



ISOLDE Workshop 17 Dec 2014

13th February 2015

# Outline

- Fellows Associates and students
- Courses and workshops during 2015
- ENSAR / ENSAR 2
- EURISOL MoU / EURISOL DF
- Status of the Experiments: NICOLE, WITCH
- Financial situation of the collaboration
- User Registration and the Grey Book

# Fellows, Associates & Students

- **Associates** (13<sup>th</sup> March)
  - Haraldur Palle Gunnlaugsson, Feb2015-Jan2016
- **Corresponding Associates** (13<sup>th</sup> March)
  - Janne Pakarinen July-Dec 2015
- **Fellows:** (2<sup>th</sup> of March 2015)
  - ✓ Monika Stachura, April 2013- March 2015 ( Applied Sciences)
  - ✓ Miguel Madurga ( June 2014 – May 2016) (Nuclear structure)
  - ✓ Stephan Ettenbauer (June 2014 – Jan 2017, COLLAPS, Polarisastion beams)
  - ✓ Akira Miyazaki (June 2014- May 2016, SC cavities)
  - ✓ Kara Lynch ( Jan 2015 – Dec 2017)
  - ✓ Torben E. Molholt (Feb 2015 – Jan2017) (Applied Sciences)

[Good Candidates are requested to apply for a research fellow in March 2015](#)
- **Doctoral student:**
  - ✓ Doctoral Student CERN for IDS: Razvan Lica (Sep2014 – August 2017)
  - ✓ Doctoral Program with Greece for life sciences (50% GR, 50% CERN):
    - Stavroula Pallada (March 2014 - Feb 2017), Biophysics
  - ✓ Doctoral Program with Germany
    - Laura Grob (Jun2014 –May 2017), COLLAPS
    - Andre Welker (feb 2015-Jan2018), ISOLTRAP
- **User support:** Jennifer Weterings (50% Col + 50% PH) → Indefinite contract with the University of Oslo, ongoing.

# Courses / Workshops

## ● Courses

- 2 Separator courses 23<sup>rd</sup> – 27<sup>th</sup> of March 2015

## ● Workshop

- Next Workshop: 2-4 December 2015
- ISOLDE Workshop 15 – 17 December 2014

Golden Jubilee Session Wednesday 17th to celebrate the 50 years anniversary of ISOLDE approval.

2 Poster prizes and 2 young researchers

Video recorded:

<https://indico.cern.ch/event/334117/other-view?view=standard>

Photos: <http://cds.cern.ch/record/1977917?ln=en>

- SASc-ISOLDE Spring Workshop on GEANT4 (SWG 2015), will be held on April 26 - May 1, 2015 in Slovakia. Still accepting Students.



# ENSAR / ENSAR 2

- ENSAR stand for European Nuclear Structure and Application Research
  - Started 1<sup>st</sup> Sep 2010 ends in 31<sup>st</sup> Dec 2014
  - The TNA money used this year for young newcomers : 237 days distributed this year.

TOTAL

- ✓ 418 users got TNA money, some users several times.
- ✓ 2481 days were paid
- ✓ 90 projects.

- ENSAR 2 Application submitted 2<sup>nd</sup> of September. Mushin Harakeh coordinator

- 10 Meuros
  - **10 TNAs**
  - **7 JRAs**
  - **8 Nas**

## EC financial contribution request: 10 M€

- ❑ **Transnational Access Activities: 47.5%**
- ❑ **Joint Research Activities: 37.2%**
- ❑ **Networking Activities: 15.3%**

Evaluation: Jan 2015  
Reserved list: 19/20  
M. Mena depending of  
extra funds available

# EURISOL MoU / EURISOL DF

- Steps towards EURISOL:
  - ✓ Conceptual Design Report (2004)
  - ✓ Reference Design report & preliminary Cost Estimate (2009)
- Supported by Long Range Plan 2010, A MoU was created to launch a collaborative effort to continue the development of EURISOL R&D and Cost
- Parties: CERN, GANIL(2011), COPIN (Poland) (2012), BEC (Belgium) 12/7/2014, INFN(2014). Valid 3 years → July 2017
- Steering Committee: M.J. G. Borge, M. Lewitowitz (project leader), A. Maj, L. Popescu, Sara Pirrone and A. Bracco (Nuppec Chair, ex-officio member)

● Fee 3000 euros/ y



Propose in Lisbon Oct2012  
Discussed in York July 2014

## EURISOL DF Goals:

- ISOL-based EU-projects supported, upgraded, optimized and coordinated .
- Strong physics case, R&D in RIB production and instrumentation for EURISOL
- Enter in ESFRI list (3 countries) and obtain funds.
  - Plan for call 2018
- To be define:
  - Members: GANIL, ISOLDE, SPES (+ISOL@MYRRHA)
  - Small scale ISOL facilities: ALTO, Jyvaskyla

# Towards EURISOL-DF

## ● ISOLDE

- Concentrate in the Intensity, purity and emittance of the radioactive beams .  
Target + ION SOURCE
- RFQ  
HRS new design
- Implementation of the TSR as part of the Instrumentation
- Design of new beam dumps to face the increase in energy

## ● SPES:

- High level European Instrumentation; AGATA, FAZIA, PARIS..
- Second ISOL bunker and high intensity direct Target
- HRS 1/40.000.
- Reaccelerated beam energy upgrade
- EBIS
- **SPIRAL2:** High Intensity accelerator as prototype of EURISOL driver
- Handling of high radioactivity and maintenance
  - High-power converter and big volume Ucx Target (SPIRAL2, Phase2)
  - Innovative instrumentation
- **ISOL@MYRRHA**
  - High reliability
  - R&D in beam purification

- EURISOL Steering Committee integrated by M. Lewitowicz (GANIL, Chair), P. Nainorkowski (COPIN) S. Pirrone (INFN), L. Popescu (BEC), M. Borge (CERN) and Angela Bracco for NuPECC.



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# News on the Beam Lines



# NICOLE Status

- Set the fridge at the beam line roughly.
- Re-assemble the main unit of the fridge.
- Vacuum test at the LN2 temperature.



## ● Next steps, 2015:

He-transfer test with the new supports and test the fridge at He temperature.

Connect the fridge to the beam line (fine alignment)

(9feb2015 ) Takashi Ohtsubo: We would like to finish the entire test of NICOLE before the next meeting in June and join it. I will discuss with my collaborators to make a plan for this.



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# Collaboration Matters

# Income of the collaboration

Country	Amount per year (CHF)	2013 contribution Received	2014 contribution Received
Belgium	60.000	✓	
CERN	60.000	✓	
Denmark	60.000		
Finland	60.000		
France	60.000		
Germany			
Greece			
India			
Romania		✓	✓
Spain		In the way	✓
Sweden	60.000	✓	✓
United Kingdom	60.000	✓	✓

**Bulgaria** has agreed with the ISOLDE-MoU & Sergio Bertolucci has signed the 21<sup>st</sup> of March 2014, pending the Bulgaria side.

**Poland** is in the process to apply.

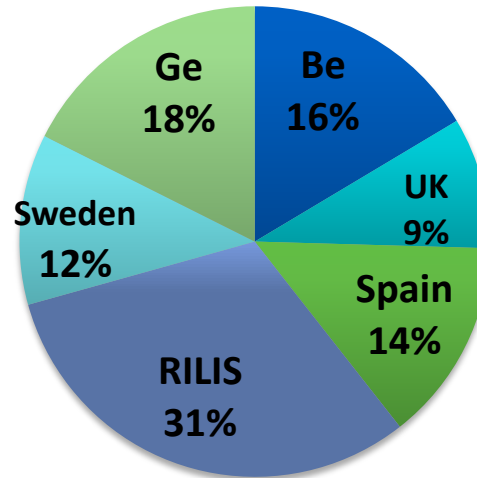
**South Africa** is in the process to apply.

**Algeria** is interested in joining.

Problems with India and Ireland contributions

# Expenditure Collaboration

- Contribution 2013 and 2014 to HIE-ISOLDE already transferred.



Substance  
2014

- Minimum Expenditure foreseen for **2014** 250.00 – 300.000  
Real: 252.084 CHF /42611,58 for B508
- Balance 31st December 2014 **588.466 CHF**
- Contribution 2012 96,2 % received
- Contributions 2013 80 % received
- Contributions 2014 66 % received
- Contributions 2015 7,3 % received

# IRELAND at ISOLDE

- The following is a short account of the situation regarding Ireland's membership of the ISOLDE collaboration. (martin O. Henry, 12 Feb 2015)
- The initial three-year funding at the reduced subscription fee was funded by Dublin City University (DCU). At the end of that period I attempted to secure funding for a further five-year period to include sources other than DCU. The ISOLDE workshop held in DCU in 2012 (strongly supported by ISOLDE personnel) was for that purpose. The level of interest in the workshop was very disappointing and the upshot is that the funding has not been secured. I had hoped that a successful Angstrom proposal under Horizon 2020 in 2014 might make a difference, but I am now of the opinion that even if we are successful with Angstrom in 2015 the situation will not improve to the extent that several years' subscription (even at the generously reduced rate) will be provided. Added to that, I am now retired (though still active in research), and as there is no evidence of other researchers in Ireland becoming involved, the likelihood is that Irish participation in ISOLDE research will diminish. Accordingly, **it may be opportune to examine the case for Ireland's continued formal involvement.**
- I would like to acknowledge the generosity of the collaboration in establishing the reduced fee structure for cases such as Ireland's. I would also like to acknowledge the excellent support provided by ISOLDE personnel (administrative, technical and scientific) over the years, which make it always a pleasure to go there.

# India @ ISOLDE

● Ushasi Datta Pramanik India Representative ( 30 July 2014):

After a long waiting (two years), we have received our 12th plan budget approval (2012-2017). But unfortunately, we did not get approval for our ISOLDE-CERN project. I hear that, it is already known by Dr. R.Voss and I hope that he already informed you. So we shall be not able to pay the ISOLDE fees.

Susanta Lahiri (14 october 2014):

I will try to take it to the notice of the appropriate authority.

Pending further information

# USER Office & Grey Book

- The Structure for registration of ISOLDE experiments , Institutes and Collaborators, in Grey Book appears not to be adapted to current needs of experiments and Administrative work of the Grey book secretariat.
- New experiments are approved and registered while the teams and their members remained largely stable. Often the Collaborators are assigned to one of the individual Isxxx experiments while working on several in parallel.
- Grey Book keeps only open experiments: IS366, IS409-594

To be completed by Team Leader (for Use  
For Users

The candidate will participate in the  
primary experiment ..  
other experiments ..  
agreed between CERN and the home  
institution.

Team account: - ..... .. .

Team Leader: .....

Signature: ..

# Present information in Grey Book

## ● Example IS568: High-resolution laser spectroscopy of nickel isotopes

### Belgium, Leuven

KU Leuven Team Leader: *Nathal SEVERIJNS* Deputy Team Leader(s): *Gerda NEYENS, Marc HUYSE*

### Germany, Darmstadt

GSI - Helmholtzzentrum für Schwerionenforschung GmbH

Atomic Physics Department Team Leader: *Frank HERFURTH* Deputy Team Leader(s): *Wilfried NOERTERSHAEUSER, Alexander HERLERT*

### Germany, Heidelberg

Max-Planck-Gesellschaft (MPG)

Max-Planck-Institut für Kernphysik (MPI) Team Leader: *Klaus BLAUM* Deputy Team Leader(s): *Alban KELLERBAUER, Deyan YORDANOV*

### Germany, Mainz

Johannes-Gutenberg-Universität Mainz

Institut für Kernchemie Team Leader: *Wilfried NOERTERSHAEUSER* Deputy Team Leader(s): *Christopher GEPPERT, Alexander HERLERT*

### Switzerland, Geneva

Conseil Européen pour la Recherche Nucléaire (CERN)

Team Leader: *Yorick BLUMENFELD* Deputy Team Leader(s): *Alexander HERLERT*

### United Kingdom, Liverpool

University of Liverpool

Department of Physics

Oliver Lodge Laboratory Team Leader: *Peter BUTLER* Deputy Team Leader(s): *Alexander HERLERT*

### United Kingdom, Manchester

University of Manchester

Department of Physics and Astronomy, Schuster Laboratory Team Leader: *Jonathan FREEMAN*

The authors belong to the team.

NOT Always all are presented

This information is displayed into the  
greybook : ISXXX-Institute XXX- person  
(name, surname).

<http://graybook.cern.ch>

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Team account: .. ..

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Signature: ..



# Present information in Grey Book

## ● Example IS568: High-resolution laser spectroscopy of nickel isotopes

**Belgium, Leuven** KU

Leuven Team Leader: *Nathal SEVERIJNS* Deputy Team Leader(s): *Gerda NEYENS*

SPOKESPERSON: Bradley CHEAL  
CONTACTPERSON: Mark BISSELL

**Germany, Darmstadt** GSI - Helmholtzzentrum für Schwerionenforschung

GmbHAtomic Physics

Department Team Leader: *Frank HERFURTH* Deputy Team Leader(s): *Wilfried NOERTERSHAEUSER*

**Germany, Heidelberg** Max-Planck-Gesellschaft (MPG)Max-Planck-Institut für

Kernphysik (MPI) Team Leader: *Klaus BLAUM* Deputy Team Leader(s): *Alban KELLERBAUER*

**Germany, Mainz** Johannes-Gutenberg-Universität MainzInstitut für

Kernchemie Team Leader: *Wilfried NOERTERSHAEUSER* Deputy Team Leader(s): *Christopher GEPPERT*

**Switzerland, Geneva** Conseil Européen pour la Recherche Nucléaire

(CERN) Team Leader: *Yorick BLUMENFELD* Deputy Team Leader(s): *Alexander HERLERT*

**United Kingdom, Liverpool** University of LiverpoolDepartment of PhysicsOliver Lodge

Laboratory Team Leader: *Peter BUTLER* Deputy Team Leader(s): *Alexander HERLERT*

**United Kingdom, Manchester** University of ManchesterDepartment of Physics and

Astronomy, Schuster

Laboratory Team Leader: *Jonathan BILLOWES* Deputy Team Leader(s): *Sean FREEMAN*

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other experiments **ISOLDE** ..  
agreed between CERN and the home institution.

Team account: .. ..

Team Leader: .....

Signature: ..

The authors will only be link to ISOLDE  
and not to a specific Experiment