



News of the ISOLDE Group

Maria J. G. Borge



Outline

- Fellows Associates and students
- Courses and activities during 2013
- ISOLDE workshop 2013
- Financial situation of the collaboration
- Schools
- Publications and website (courtesy of Jenny)
- ENSAR 1
- ENSAR 2

Fellows, Associates & Students

- Associate: Marek Pfützner (until June 2013)
 - Alfredo Poves From January to June 2014
- CAS: Olof Tengblad (Jul-Dec 2013)
- Fellows: (dead lines 1 March, 3rd September)
 - ✓ Susanne Kreim, Dec2014 (+ 1y COFUND)
 - ✓ Elisa Rapisarda, Sept 2014
 - ✓ Monika Stachura, starting April 2013- March 2015
 - ✓ Jan Kurcewicz, nov 2013 (Applied Fellow until Nov 2012, EU)

EXPECTED TO BE ABLE TO DEFEND A FELLOW CANDIDATURE FOR SEP application
- Doctoral student: Kara Lynch, August 2013.
 - **APPLICANT FOR A NEW DOCTORAL STUDENT For FIXED DECAY STATION FOR MARCH !st.**
 - **NO APPLICATIONS ; SO DELAYED FOR THE NEXT APPLICATION PERIOD IN NOVEMBER**
- **Technical student:** Rikard Vinge, July 2013 (Twin-EBIS)
- Technicien: Julien Thiboud, August 2015 (Col + EU support (Aug 2014))
- User support: Jennifer Wetterings (50% Col + 50% PH)

Courses 2013

- **Statistical Methods for Nuclear Physics**

Karsten Riisager

18-20 of March

Great Success more than 25 attendants.

- **Physics courses for Summer students: 3 lecturers 17-19 July 2013**

1. Magda Kowalska:

2. Magda Kowalska: ISOLDE facility

3. Magda Kowalska: ISOLDE Physics

- **Three Lectures by Rick Casten 23 – 25 July 2013**

-The new Frontier of exotic Nuclei—shattering cherished paradigms and building a new synthesis

- Emergent collectivity, phase transitions and cosmological consequences.

- **Shell model for non Practicioners 14 – 18 of October**

By Frederick Nowacki et al

Workshops 2013

- 1 Day workshop on ASPIC 6 of September
- ISOLDE Workshop 25 – 27 October 2013
- HIE-ISOLDE Workshop 28-29 November 2013

Schools

- The ISOLDE collaboration contribute with 3000 euros to
 - The Euroschool of Exotic Beams since 2010
 - Ecole Joliot-Curie since 2011, 2012, 2013
 - 2011: “ Physics at the femtometer scale”
 - 2012: “Nuclei through the looking glass : High intensity stable and ISOL beam frontier”
 - 2013: “A colourful journey: from Hadrons to Quark-Gluon Plasma”
 - 2014: “Neutrons and Nuclei”(NFS & n-ToF)
 - 2015: Nuclear astrophysics, experimental and theoretical related aspects
 - 2016: ‘Instrumentation, new detectors and Facilities

Question should we continue contributing ?

ENSAR (European Nuclear Structure and Application Research)

- The aim of Integrated Activities in FP7 is to improve the access of European Researchers to facilities which are not in their country of Origin and to increase the output of these facilities. This is done through 3 types of work packages:
 - Trans-national access (TNA)
 - Networks (NA):
 - ✓ The EURISOL-NET Network in ENSAR (NA3,WP3, Y. Blumenfeld *leader*)
 - Task 1 : Coordination of R&D (Y. Kadi *leader*): First workshop at CERN 27-28 June 2011
 - Task 2: Physics and Instrumentation (A. Bonaccorso *leader*)
 - Joint research activities (JRA) :
 - ✓ ACTILAB (JRA2/WP8, Thierry Stora (EN) *Leader*).
Improvement of Actinide target technology for ISOL facilities.
 - ✓ PREMASS (JRA3/WP9) coordinated by Ari Jokinen (JYFL Finland)
Task. Improvement of beam purity and emittance in ISOL facilities.
Valentin Fedosseev (EN) leads a task
- ENSAR started on Sept. 1, till August 31st, 2014.
Discussion of prolongation due to the late start of FP8, Horizon 2020
- Y.B.<<>> M.J.G. Borge is the CERN representative

STATISTICS Until April, 2013

| | |
|---------------------------------------|---------------------------------|
| Number of beam hours-Full Contract | 5200 |
| provided as of 31/12/12 | 6946,4 |
| Number of users- full contract | 400 |
| Supported as of 31/12/12 | 352 (User counted 1 per IS-exp) |
| Number of days support- full contract | 2800 |
| Supported as of 31/12/12 | 2244 |
| Number of projects – full contract | |
| Supported as of 31/12/12 | 75 (different experiments) |
| T&S – full contract (EUR) | 252000 |
| Distributed as of 31/12/12 | 256947 (309672CHF) |
| Number Experiments / researchers | 75 / 352 |
| Rate of days per experiment | 4.69 researcher / exp |
| Access costs – full contract (EUR) | 291408 |
| Access costs up to 31/12/12 | 389276 (= 6946,4 x 56,04) |

Remining 33.000 CHF for 2014

TransNational Access Sep 2010 - Dec 2012

| Year | Money Expended | N. Exp covered | Exp Number (number of people) | Num people covered | Rate people /exp |
|------|--------------------|----------------|--|--------------------|------------------|
| 2010 | 52440 (43700) | 12 | IS430(6); IS447(4); IS449(6); IS453(3); IS463(2); IS481(2); IS487(3); IS488(3); IS491(15); IS498(2); IS499(6); IS501(3) | 55 | 4,61 |
| 2011 | 118266 (96939) | 44 | IS413(4); IS433(4); IS441(2); IS445(2); IS448(3); IS451(7); IS453(8); IS457(4); IS463(3); IS466(5); IS471(2); IS473(3); IS475(4); IS476(3); IS477(6); IS478(3); IS481(3); IS482(3); IS483(6); IS484(3); IS485(4); IS487(3); IS489(3); IS492(4); IS494(5); IS496(5); IS497(4); IS498(3); IS500(1); IS501(4); IS504(7); IS506(2); IS507(3); IS510(4); IS511(4); IS515 (7); IS517(3); IS518(3); Lol21(3); Lol31(2); Lol32(7); Lol86(3); Lol87(4); Lol88(1) | 178 | 4,04 |
| 2012 | 140174 (116308) | 47 | IS433(2); IS437(2); IS453(1); IS456(5); IS471(4); IS4373(8); IS475(3); IS476(2); IS478(5); IS479(5); IS481(2); IS482(1); IS484(1); IS487(2); IS488(1); IS489(1); IS495(5); IS496(3); IS497(5); IS498(3); IS501(1); IS505(5); IS506(3); IS508(5); IS509(2); IS510(2); IS512(4); IS515(1); IS518(2); IS520(7); IS524 (6); IS528(1); IS529(3); IS530(6); IS532(5); IS534(6); IS535(5); IS336(6); IS537(8); IS539(5); IS540(1); IS541(7); IS543(4); IS545(2); Lol83(2); Lol132(2); Lol144(1) | 163 | 3,46 |

TNA Summary June 2013



| TNA | Number of beam hours promised - full contract | Number of beam hours 01/09/2010 - 30/04/2013 | Estimated number of Users - full contract | Number of Users 01/09/2010 - 30/04/2013 | Estimated number of days - full contract | Number of days 01/09/2010 - 30/04/2013 | Estimated number of projects - full contract | Number of projects 01/09/2010 - 30/04/2013 |
|--------|---|--|---|---|--|--|--|--|
| GANIL | 3500 | 3237 | 280 | 199 | 3200 | 2436 | 40 | 21 |
| GSI | 3750 | 2520 | 230 | 152 | 2250 | 1520 | 33 | 24 |
| INFN | 4424 | 3475 | 204 | 133 | 1816 | 923 | 52 | 27 |
| JYFL | 3000 | 2305 | 200 | 231 | 2000 | 2439 | 50 | 41 |
| KVI | 800 | 800 | 48 | 26 | 480 | 227 | 6 | 5 |
| ISOLDE | 5200 | 6946 | 400 | 352 | 2800 | 2244 | 60 | 75 |
| ALTO | 1470 | 2400 | 116 | 80 | 556 | 576 | 76 | 19 |

GANIL

We will start operations in July and do plan **to use all of our remaining TNA budget.** For the AGATA part of our budget it would be beneficial to have an extension of at least 6 months

GSI

Conclusion: potentially ~50 kEuros of the TNA money cannot be spend.

LNS+Legnaro (INFN)

In principle used of all money

JYFL & ALTO & ISOLDE

Ready for offering more access. T&S funds transferred from others are welcome

KVI

we will probably NOT exhaust the budget for travel and subsistence.

ENSAR 2 / Town Meeting

Call for **NA, JRA**, until 15th of April

 14 proposals for NA

 27 proposals for JRA

 Presentations in Warsaw under the title BEYOND ENSAR

 **TNA Krakow + Warsaw**

 **TNA KVI**

 **TNA ELI-NP**

- **ASTARTE** (P. Thierolf)
- **DEMARCOS** (P. Haensel)
- **NucApp** (S. Leray)
- **Phys & Instr** for new generation of High Flux
- **High Complexity Nuclear Structure** (S. Lenzi)
- **UNITHERI** (D. Lacroix)
- **NUSTAR** (C. Scheidenberger)
- **Fundamental Interaction** (A. Jokinen)
- **FULN** (M. Freer)
- **Theory Network in Reactions** (A. Moro)
- **ENSAF** (Harissopulos)

Merging of several JRA before Warsaw

- **ECOS** (F. Azaiez)
- **AGATA: TNA or JRA** (B. Cederwall)
- **EURISOL** (Piet Van Duppen)
- **DEMARCOS** (P. Haensel)
- **Beamlab** (C. Lau)
- **PASPAG** (O. Tengblad)
- **AHEAD** (A. Drouart)
- **RESIST** (I. Moore)
- **Separator Control** (S. Pietri, GSI)
- **MIDAS** (Koivisto, JYFL)
- **Gas filled detectors** (Grinyer)
- **Nuclear tools for Medical applications**
- **Sinurse2**
- **Neutron Detectors** (D. Cano-Ott)
- **Gamma Tracking** (D. Napoli)

Meeting 17-18 October in Padova, Discussion and Decisions

Call in 2014

PUBLICATIONS

| YEAR | N. PUBLICATIONS | PH. D thesis |
|------|-----------------|---|
| 2010 | 67 | V. Bilstein T.E. Cocoolios R. Domínguez Reyes D. Fink S. Naimi D. Neidherr K. Wimmer A. Meaney |
| 2011 | | M. Albers J. Lommen O. Müller M. Thürauf M. Zboril |
| 2012 | 62 | Ch. Borgmann E. Estevez J.G. Johansen T. E. Mølholt A.B. Perez Cerdán M. Seidlitz M. Stachura |
| 2013 | 17..... | P. Kessler B. Siebeck T.J. Procter D. Di Julio J. Cullen |

Please send us the reference and if possible a copy of the thesis done based in data from ISOLDE



New Web Page / Jenny



The Radioactive Ion Beam facility

Facility

Experiments

User info

Local group

Contacts

Facility

History

Targets & Separators

Projects

REX-ISOLDE

RILIS

Experimental set-ups

The ISOLDE Radioactive Ion Beam facility



Useful links

[Weekly schedules](#)

[ISOLDE and nTOF Experiments](#)

[Committee \(INTC\)](#)

[HIE-ISOLDE](#)

[ISOLDE Logo, Layouts and Templates](#)

[Machine FAQs](#)

[On-Line Info \(VISTAR, e-logs, ...\)](#)

Latest updates from ISOLDE

[ISOLDE Nuclear Physics Summer lecture series 23-26 July 2013](#)

5 Jul 2013

Newsletters

ISOLDE newsletter Spring 2013



<http://www.cern.ch/isolde>

Introduction

On the first of August I took over the ISOLDE leadership from Yorick Blumenfeld in the middle of the most intense period of

techniques succeeded for the first time and various new devices were completed at ISOLDE and successfully took data. One of the greatest achievements was to implant spin-polarized ^{31}Mg nuclei, at the COLLAPS

- ISOLDE newsletters published in May : 26 contributions!!
- NewsLetters of PH-department: 2 articles and 1 interview

“Three Natures in ISOLDE hands” 13 June 2013

M.J.G. Borge

“ISOLTRAP’s MR-ToF mass separator” 23 March 2013

Robert Wolf on behalf of the ISOLTRAP collaboration

Meeting the challenges of the High Energy ISOLDE 23 March 2013

Interview to Y.Kadi and MJG Borge *by Panos Charitos*

Hangout with CERN : Going pear- shaped

Hangout with CERN : The dream of the alchemists

Collaboration Matters

Income of the collaboration

| Country | Amount per year (CHF) | 2013 contribution Received |
|----------------|---------------------------------|----------------------------|
| Belgium | 60.000 | |
| CERN | 60.000 | ✓ |
| Denmark | 60.000 | |
| Finland | 60.000 | |
| France | 60.000 | |
| Germany | 60.000 | ✓ |
| Greece | Discussion with Greece on going | |
| India | 40.000 | |
| Ireland | 10.000 | |
| Italy | 60.000 | ✓ |
| Norway | 60.000 | ✓ |
| Romania | 60.000 | |
| Spain | 60.000 | |
| Sweden | 60.000 | ✓ |
| United Kingdom | 60.000 | |

Budget for 2013

| | |
|---|---------------------------------|
| ● Man Power : | |
| ➤ Experts | 35000 |
| ➤ Target & Ion source | 8000 (A. Gottberg Jan-April) |
| ➤ RILIS | 3400 (Seliverstov Jan-Feb) |
| ➤ Rex-Operation | 83792 (Thibaud) |
| ➤ Student support | 25000 |
| ➤ ISOLDE Seminars | 6000 |
| | 161192 |
| ● Administration | 35000 |
| ● Consumables | 40000 |
| ● Conferences & schools | 10000 |
| ● TOTAL | 250.000 |
| ● Expenditure | 152371,39 (January-June) |
| ● Contribution to HIE-ISOLDE of 500.000 pending | |
| ● Present balance | 725. 184 |
| ● Contributions 2013 | 35% received |

ISOLDE Collaboration Loan

- In Our Meeting in January we agree to ask for a Loan of 700.000 CHF to complete Phase I of the HIE-ISOLDE project
- A memorandum was presented by Sergio Bertolucci, Director of Research, to the Director of Administration and Infrastructure , Sigur Lettow in February.
- With the main request:
*“Such a loan would be monitored regularly by the ISOLDE Physics Group leader and the Chairperson of the ISOLDE Collaboration Committee (ISCC) reporting to the ISCC 3 times a year, and any other reporting requested by the Director of Administration. **The loan would be repaid to CERN between 2016 and 2020** “*

May 15, 2013: Mr Lettow agreed to this loan.

CERN cannot grant a loan to ISOLDE based on a memorandum, a kind of a loan contract needs to be issued and signed by both parties: CERN and ISOLDE . We have signed such a contract

And an account with the money created.



- 🌐 Discussion on the Future Coordinator

- 🌐 ASPIC

- 🌐 Korea → For A.O.B.

- 🌐 Thanks for your attention