

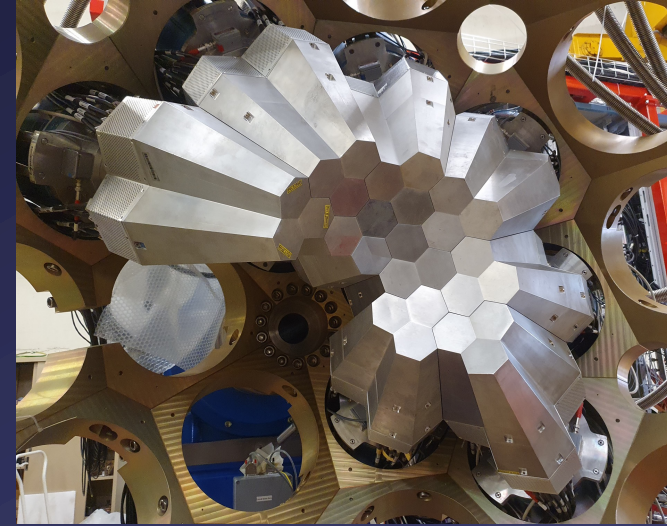


12th AGATA Collaboration Council

Legnaro National Laboratory

10th June 2022

Silvia Leoni (Milan University and INFN)



Welcome to the 11th AGATA Collaboration Council

AGENDA

- Report from ACC (S. Leoni)
- Report from ASC (A. Bracco)
- Report from AMB (E. Clement)

- General Discussion

- AOB

AGATA Collaboration Memberships

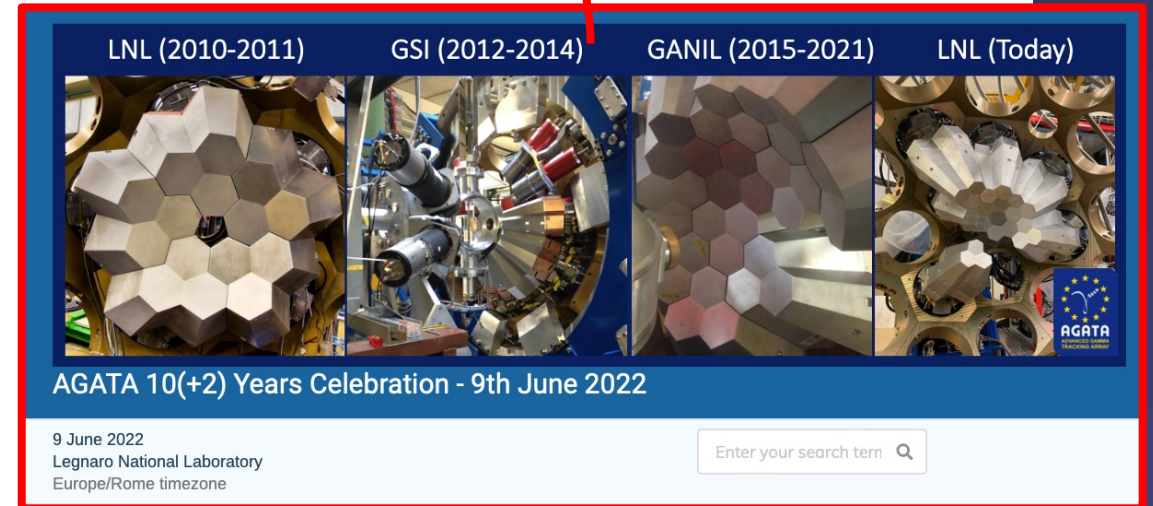
Steering Committee Chairperson: A. Bracco (since March 2022)



Bulgaria:	Univ. Sofia, INRNE Sofia	
Finland:	Univ. Jyväskylä	
France:	GANIL Caen, IP2I Lyon, IJC Orsay, IPHC Strasbourg, DRF/IRFU Saclay	
Germany:	GSI Darmstadt, TU Darmstadt, Univ. zu Köln	
Hungary:	ATOMKI Debrecen	13 Countries
Italy:	INFN Firenze, Legnaro, Milano, Padova	40 Institutions
Poland:	IFJ PAN Krakow, University of Warsaw (HIL)	
Spain:	CSIC-Universidad de Valencia, Instituto de Fisica Corpuscular Universidad de Valencia, Escuela Tecnica Superior de Ingenieria CSIC, Instituto de Estructura de la Materia, Madrid Universidad de Salamanca, Laboratorio de Radiaciones Ionizantes	
Sweden:	Lund Univ., KTH Royal Institute of Technology Stockholm, Uppsala Univ, Stockholm Univ.	
Turkey:	Univ's Ankara, Istanbul, Kocaelli, Bitlis Eren	
UK:	Univ's Brighton, Edinburgh, Liverpool, Manchester, West of Scotland, Surrey, & York, UKRI-STFC Daresbury	
Romania:	IFIN-HH Bucharest	
Slovenia:	Ljubljana	

AGATA Collaboration Meetings

- **10 June 2022, LNL, Legnaro, Italy – After AGATA week 2022**
- 10-12 November 2021, LNL, Legnaro, Italy **11th AGATA Collaboration Meeting (from GANIL to LNL ...), after Pre-PAC**
- The collaboration meeting 2020, planned to be held at GANIL during the AGATA week in September 2020, was cancelled due to the COVID-19 pandemic.
- 24-28 June 2019, Orsay, Paris, France
- 25-29 June 2018, IFIC, Valencia, Spain
- 26-29 June 2017, GSI, Darmstadt, Germany
- 30 June - 1 July 2016, San Servolo, Venice, Italy
- 6-7 July 2015, IPN-Orsay, Paris, France
- 26 June 2014, GSI, Germany
- 27 June 2013, Liverpool, UK
- 27 June 2012, Orsay, France
- 30 June 2011, Padova, Italy
- 25 November 2010, IPN Lyon, France



Meeting usually held together with a workshop on nuclear structure physics

NUSPIN (2016-2019), (EGAN 2011-2014), AGATA inauguration at LNL (2009)

Future meetings? in 2023?

PROGRAM

- 9.00- 9:10** Welcome from ACC Chair
Silvia Leoni (university of Milan and INFN)
- 9.10- 9.30** Report on AGATA@GANIL experiment E680
"Structure of ^{83}As , ^{85}As and ^{87}As : from semi-magicity to gamma-softness"
Kseniia Rezyunkina (INFN, Padova, Italy)
- 9.30- 9.50** Report on AGATA@GANIL experiment E664
"Unsafe Coulomb excitation of ^{106}Cd "
Desislava Kalaydjieva (CEA, Saclay, France)
- 9.50- 10.10** Report on AGATA@GANIL experiment E793S
"Spectroscopy of 48K from 47K(d,p)48K"
Charlie Paxma (University of Surrey, UK)
- 10.10-10:30** Report on AGATA@GANIL experiment E7929
"Nuclear Structure at and around the N=126 Shell Closure"
Yung Hee KIM (Center for Exotic Nuclear Studies, Institute of Basic Science, South Korea) (remote)
- 10.30-10:50** Report on AGATA@GANIL experiment E810_20 (ex. E766)
"Identification of exotic reaction channels in $^{238}\text{U}+^{238}\text{U}$ "
Dieter Ackermann (GANIL, France)
- 10:50-11:10** Next Campaign and concluding remarks
Magda Zielinska
- 11:10-11:40** **Coffee Break**
- 11:45-13:00** **AGATA Collaboration Council Meeting (Closed Session)**
- 13:30** **Lunch**



AGATA Collaboration Meeting

10th June 2022
INFN Legnaro



5 Reports from AGATA@GANIL

- 2 from 2015 experiments (by products of main goal)
- 3 from 2021 experiments

16 Reports at last AGATA meeting (Nov. 2021)

- 15 from AGATA@GANIL (2015-2020, total of 26 exp.)
- 1 from AGATA@GSI

FIRST pre-PAC Meeting
8-10 Nov. 21



pre-PAC Workshop of AGATA@LNL

8–10 Nov 2021
INFN-LNL
Europe/Rome timezone

Organized by

Javier Valiente Dobon (INFN Legnaro Laboratory), Local Project Manager
Magda Zielinska (CEA, Saclay), LNL Campaign Spokesperson

More than 100 participants

34 Letters of intent: Stable beams, mainly AGATA@PRISMA, also other ancillaries

Call for proposals: end 2021

PAC: 21-23 February 2022

Start Campaign: April 2022

Pre-PAC (8-10 November 2021)

Total 34 Lols!

	id	spokesperson1	others	title	PRISMA
2	Light nuclei (mostly N=20, N=28)				
3	31	M. Ciemala	F. Crespi	Lifetime measurements of excited states in neutron-rich 16C and 18C isotopes: a test of the three-body forces	
4	19	S. Lenzi		Doorway states and the development of deformation in the Island of inversion around 32Mg	
5	15	I. Zanon	D. Brugnara	Investigation of the intruder band in 34Si via lifetime measurement	
6	29	K. Hadynska-Klek		Coulomb excitation of the super-deformed structure in 36Ar	
7	37	M. Balogh	K. Hadynska-Klek	Evolution of deformation along the calcium isotopic chain: Coulomb excitation of 44Ca	
8	21	P. Koseoglu	V. Werner, M. L. Cort	Investigation of the N = 20 to N = 28 closed shells transition: Lifetime and g-factor measurements in argon isotopes	
9	22	A. Gottardo		Large matter radii and halo-like neutron p-shells hypothesis in 50-52Ca: do we see evidence from spectroscopy?	
10	shape coexistence & shape isomers - would be good to put next to Coulex (29 + 44Ca)				
11	25	N. Marginean	M. Sferrazza	Search for shape isomers in 188Pt by using near-barrier transfer reactions with AGATA at LNL	
12	14	N. Marchini	D. Doherty, M. Zielins	Coexisting Shapes and Precision Tests of Monte-Carlo Shell-Model Calculations in 96Zr	
13	Z=28 - from 68Ni to 78Ni				
14	28	F. Galtarossa	T. Huyuk, A. Gadea, D	Single-particle and collective excitations in 56Ni studied via lifetime measurement	
15	34	S. Bottoni		Effects of multiple shape coexistence on low-lying octupole vibrations and couplings	
16	20	L. Fraile	J. Benito, J. Ljungvall	Spectroscopy and lifetime measurements neutron-rich Co and Fe isotopes	
17	30	E. Sahin	A. Illana	Lifetime measurements in neutron-rich 67-75Cu and 70-76Zn nuclei above N = 40	
18	27	G. Pasqualato	J. Ljungvall	Study of shape coexistence in 60Fe via lifetime measurement of excited 0+ states	
19	seniority - would be good to put close to 26				
20	26	R. Perez	M. Doncel, A. Gadea,	Investigation of the seniority conservation in the neutron g9/2 shell towards 78Ni	
21	32	A. Ertoprak	B. Cederwall, M. Don	Lifetime measurements in neutron deficient A=90 nuclei between the N=Z line and the N=50 shell closure: Disentangling collective modes, s	
22	around 132Sn; Lol 18 can be also put here				
23	9	G. Zhang		Lifetime measurement in the low-lying states of neutron-rich Cd isotopes	
24	5	M. Siciliano	I. Zanon	Towards the 132Sn nucleus via lifetime measurements	
25	rare earths				
26	23	A. Boston	J. Nyberg, P. Regan	High Spin Evolution of the doubly midshell nucleus 170-Dy	
27	6	C. Fahlander	A.J. Mitchell	Two-Phonon Gamma Vibrations in 162Dy	
28	7	J. Ha	Y.H. Kim	Gamma-ray spectroscopy of the neutron-rich Yb and Er isotopes: a quest for strong deformation around N=110	
29	around 208Pb				
30	24	J. Pellumaj	R. Perez-Vidal, F. Galt	Study of the evolution of deformation and collectivity in tungsten isotopes through lifetime measurements in 190W	
31	33	D. Brugnara	J. Valiente	Lifetimes in the 196Os region populated with multi-nucleon transfer reactions	
32	35	M. Sedlak		Lifetime measurements of 202Pt: Shape evolution towards N=126 closed shell	
33	18	P. Reiter		Pathway to nuclear structure in heavy neutron rich nuclei in the vicinity of N=126 and nuclei northwest of 132Sn via multi-nucleon transfer rea	
34	16	V. Werner	P. John, F. Recchia	Direct lifetime measurements of the first excited 2+ states of 206Hg and 202Pt	
35	heavy octupole				
36	10	A. Goasduff	G. De Angelis	Search for octupole structures in the light U and Th isotopes via Multinucleon Transfer reaction	
37	36	J.F. Smith	D. Mengoni	Octupole correlations in the neutron-deficient plutonium isotopes	
38	Reaction mechanism				
39	4	L. Corradi	T. Mijatovic	Probing nucleon-nucleon correlations in the 48Ca+208Pb system below the Coulomb barrier	
40	11	L. Corradi		Search for a Josephson effect in the 116Sn+60Ni system	
41	12	G. Montagnoli	A. Stefanini	A deeper insight into the fusion dynamics far below the barrier for 12C + 24Mg by particle-gamma coincidences with Agata+Euclides	
42	17	M. Caamano	D. Ramos, A. Gottard	Fusion-fission and Neutron-rich γ -spectroscopy with AGATA at PRISMA	
43	13	A. Goasduff	T. Mijatovic	Transfer-induced fission and fusion-fission studies with the 208Pb beam	
44	Astrophysics				
45	8	C. Wheldon		Establishing the properties of Ne-19 cluster states important for X-ray bursts	

PAC February 2022

Nuclear Physics (330)



- AGATA (120)
- AGATA+PRISMA (173.5)
- PRISMA (14)
- PISOLO (17.5)
- GALILEO Ch. (4)

28 proposals submitted -->

- 10 (3 commissioning) priority A
- 5 priority B

Nuclear Physics.

Prop.	Spokesperson(s)	Days	Accelerator
22.01	G.Montagnoli/M.DeI Fabbro	3+2	TANDEM
22.02	G.Montagnoli/A.M.Stefanini	7+2	TANDEM
22.04	P.Reiter	7+3	PIAVE+ALPI
22.07	F.Galtarossa/A.Gottardo	6+1	TANDEM
22.12	F.Crespi/F.Galtarossa/J.Pellumaj/ M.Rocchini/M.Sedlak	15+3	TANDEM
22.18	N.Marchini/D.Doherty/M.Zielinska	4+1	TANDEM
22.22	E.Fioretto/F.Galtarossa	3+1	TANDEM
22.23	A.Gottardo/M.Caamano/D.Ramos/ J.J.Valiente-Dobon	14+4	PIAVE+ALPI
22.28	L.Corradi/S.Szilner	14+4	PIAVE+ALPI
22.37	D.Carbone/A.Spatafora	2*	TANDEM+ALPI
22.41	M.Zielinska/K.Wrzosek Lipska/A.Nannini/ P.Garrett	5+1	TANDEM
22.42	N.Marginean/M.Ciemala/F.Crespi	12+1	TANDEM
22.43	R.M.Perez Vidal/S.Bottoni/E.Sahin/ A.Illana/J.Benito/J.Ljungvall	3**	PIAVE+ALPI

* Exp. 22.37 will be performed after the recovery of Exp. 20.13 (TANDEM+ALPI backlog experiment with 16,17,18O beams)

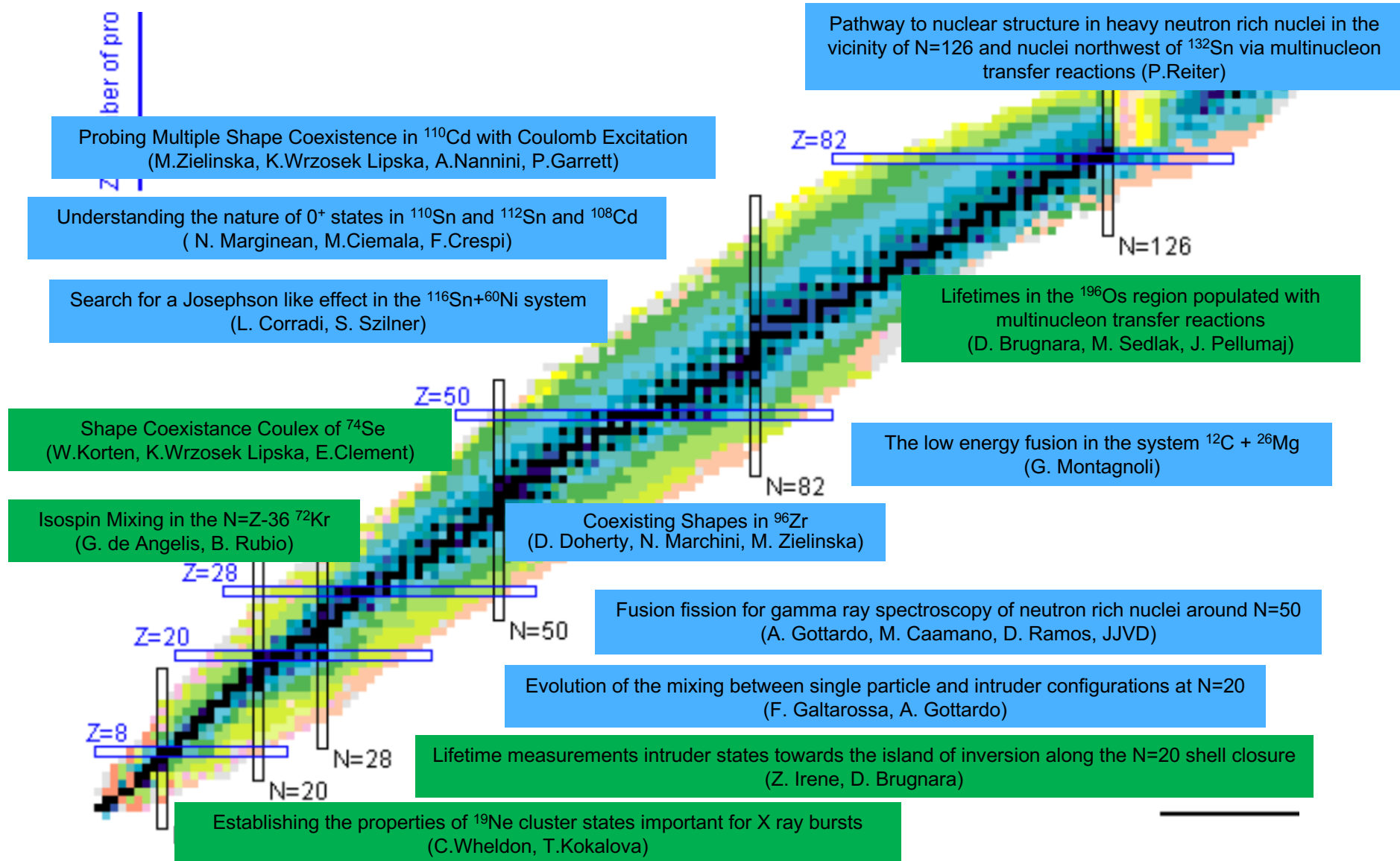
** Exp. 22.43 was recommended within the days of beam-time at disposal of the Director (beam preparation can be shared with Exp. 22.23)

Besides the recommended experiments, the committee has established also a list of 'category B' experiments to be performed in case of impossibility to run the experiments listed above.

Prop.	Spokesperson(s)	Days	Accelerator
22.11	W.Korten/K.Wrzosek Lipska/E.Clement	5+1	TANDEM
22.34	C.Wheldon/T.Kokalova	7+2	PIAVE+ALPI
22.06	D.Brugnara/J.Pellumaj/M.Sedlak	11+3	PIAVE+ALPI
22.40	I.Zanon/D.Brugnara	8+2	TANDEM+ALPI
22.27	G.de Angelis/B.Rubio	12+3	TANDEM

The possible selection of the experiments will be done according to the operation conditions of the accelerators and the available beam-time.

AGATA physics campaign



For the spokerpersons

- Two shifts tables (responsability of the spokeperson):
 - **Traditional table related to the shifts themselves**
 - **Second table exploitation** → from 8:00 to 24:00 fully dedicated to do near online analysis
- Important: spokepersons should send people well before the experiment to make sure they get fully trained**

Abbreviation	Name	Institution	e-mail	Preparation/shifts	Period in LNL
FG	Franco Galluscia	Università di Padova and INFN LNL	franco.galluscia@lnl.infn.it	Both	Beam prep. + experiment
MB	Matuš Balogh	INFN LNL	matu.balogh@lnl.infn.it	Both	Beam prep. + experiment
MS	Matuš Sedláč	INFN LNL	matu.sedlac@lnl.infn.it	Both	Beam prep. + experiment
DM	Daniele Mengoni	Università di Padova and INFN Padova	daniele.mengoni@pd.infn.it	Both	Beam prep. + experiment
NMN	Nicolas Miani	Università di Padova	nicolas.miani@studenti.unipd.it	Both	Beam prep. + experiment
LZ	Luca Zapp	Università di Padova and INFN LNL	luca.zapp@lnl.infn.it	Both	Beam prep. + experiment
AE	Aysegül Ertoprak	INFN LNL	aysegul.ertoprak@lnl.infn.it	Both	Beam prep. + experiment
DN	Daniel R. Napoli	INFN LNL	napodi@lnl.infn.it	Both	Beam prep. + experiment
PA	Pablo Aguilera	INFN PD	pablo.aguilera@pd.infn.it	Both	Beam prep. + experiment
JP	Jürgen Peltz	INFN LNL, LinFz	juergen.peltz@lnl.infn.it	Both	Beam prep. + experiment
GZ	Guangxin Zhang	INFN Padova	guangxin.zhang@pd.infn.it	Both	Beam prep. + experiment
AG	Alan Goasduff	INFN LNL	goasduff@lnl.infn.it	Both	Beam prep. + experiment
DB	Daniele Brugnara	INFN LNL	dbugnara@lnl.infn.it	Both	Beam prep. + experiment
BS	Bento Gonçalves Servin	INFN LNL, LinFz	bento.goncalves@lnl.infn.it	Both	Beam prep. + experiment
FA	Filippo Angelini	INFN LNL, UnPD	filippo.angelini@lnl.infn.it	Both	Beam prep. + experiment
JB	Jaime Bento	INFN PD, UnPD	jaime.bento@pd.infn.it	Both	Beam prep. + experiment
EP	Elia Ploche	INFN PD, UnPD	elia.ploche@pd.infn.it	Both	Beam prep. + experiment
ZV	Jose Javier Valiente Dobon	INFN LNL	valiente@lnl.infn.it	Both	Beam prep. + experiment
NMR	Naomi Marchini	INFN-FI, UnFI	nmarchin@fi.infn.it	Both	Beam prep. + experiment
SC	Sara Carollo	INFN PD, UnPD	sara.carollo@studenti.unipd.it	Both	Beam prep. + experiment
FS	Franziskus Spee	IKP Cologne	fspee@ip.uni-koeln.de	Both	Beam prep. + experiment
ZH	Zhen Huang	University and Università di Padova	huangz@pd.infn.it	Both	Beam prep. + experiment
FD	Felix Dunkel	IKP Cologne	fdunkel@ip.uni-koeln.de	Both	Beam prep. + experiment
SB	Simone Bottoni	Università degli Studi di Milano and INFN LNL	simone.bottoni@mi.infn.it	Both	Beam prep. + experiment
IZ	Irene Zanon	INFN LNL	irene.zanon@lnl.infn.it	Shifts	Beam prep. + experiment
MR	Marco Rocchini	University of Guelph	mroccin@uoguelph.ca	Shifts	Experiment
SP	Sara Pilapaloo	INFN PD, UnPD	sara.pilapaloo@pd.infn.it	Both	Beam prep. + experiment
Gozz	Andrea Gozzelino	INFN LNL	andrea.gozzelino@lnl.infn.it	Shifts	experiment
FR	Francesco Recchia	INFN PD, UnPD	recchia@pd.infn.it	Both	Beam prep. + experiment
GBN	Giovanna Benzoni	INFN MI	giovanna.benzoni@mi.infn.it	Shifts	experiment
MP	Marta Polese	UNIMI, INFN MI	marta.polese@unimi.it	Shifts	experiment
AGA	Andres Gadea	IFIC	andres.gadea@ific.uv.es	Shifts	experiment
KR	Ksenia Rezykina	INFN PD	ksenia.rezykina@pd.infn.it	both	Beam prep. + experiment
JD	Josipa Dikić	IRB Zagreb	jdiki@irb.hr	Shifts	Experiment
RP	Rosa Perez	INFN LNL	perezr@lnl.infn.it	both	Beam prep. + experiment

	Fri 27/05	Sat 28/05	Sun 29/05	Mon 30/05	Tue 31/05	Wed 01/06	Thu 02/06	Fri 03/06
0-8		***	MS		MS/LZ		Gozz	AE

8-16	Beam prep.	PA/KR	ZH/BG	MB/AE	MB/FR	MB/GZ/JD	MR/AGA	
16-24	***	JD	LZ/JD	MB/FD	EP/FS	MR	EP	

*** -> someone may be needed if the beam is on target earlier than expected

PrePAC 5-7 October 2022

5-7 dicembre 2022 PAC



pre-PAC Workshop for AGATA@LNL

5-7 Oct 2022
INFN-LNL
Europe/Rome timezone

Overview

Call for LoIs

My Conference

My Contributions

Registration

Participant List

Important dates

COVID-19 status


Accommodation

Travel

We are pleased to announce the second pre-PAC Workshop for the AGATA (<https://www.agata.org/>) physics campaign at LNL. The workshop will take place on **October 5-7th, 2022 at LNL**.

The aim of the workshop is to **assist the spokespersons in putting the strongest cases for their proposals forward through a discussion of the physics to be investigated, and to assess the feasibility of the experiments they intend to propose**. This includes all experiments planning to use stable beams from the Tandem-ALPI-PIAVE complex for studies involving AGATA in a possible combination with PRISMA and/or ancillary detectors that are compatible with PRISMA (see technical-prePAC-final.pdf).

All such proposals will have to be discussed at this workshop before being submitted to the LNL PAC. This applies also to the projects that were discussed at the PAC meeting in February 2022, but have not been granted beamtime in 2022. By applying such a procedure, the collaboration hopes to avoid their potential overlaps with new projects.

 **Starts** 5 Oct 2022, 09:00
Ends 7 Oct 2022, 15:00
Europe/Rome

 INFN-LNL
Viale dell'Università, 2, 35020 Legnaro PD
[Go to map](#)

- PRISMA : L. Corradi, F. Galtarossa
- GAL-TRACE : S. Capra, G. Zhang
- EUCLIDES: J. Pellumaj, D. Brugnara
- SPIDER: M. Rocchini, M. Balogh
- DANTE: K. Rezyunkina
- Gamma-ray scintillators: E. Gamba, S. Pigliapoco
- Plunger: I. Zanon

REGISTRATION

Participants are invited to register at the Workshop webpage:

<https://agenda.infn.it/event/31038/>

The deadline for registration is September 28th, 2022.

IMPORTANT DEADLINES

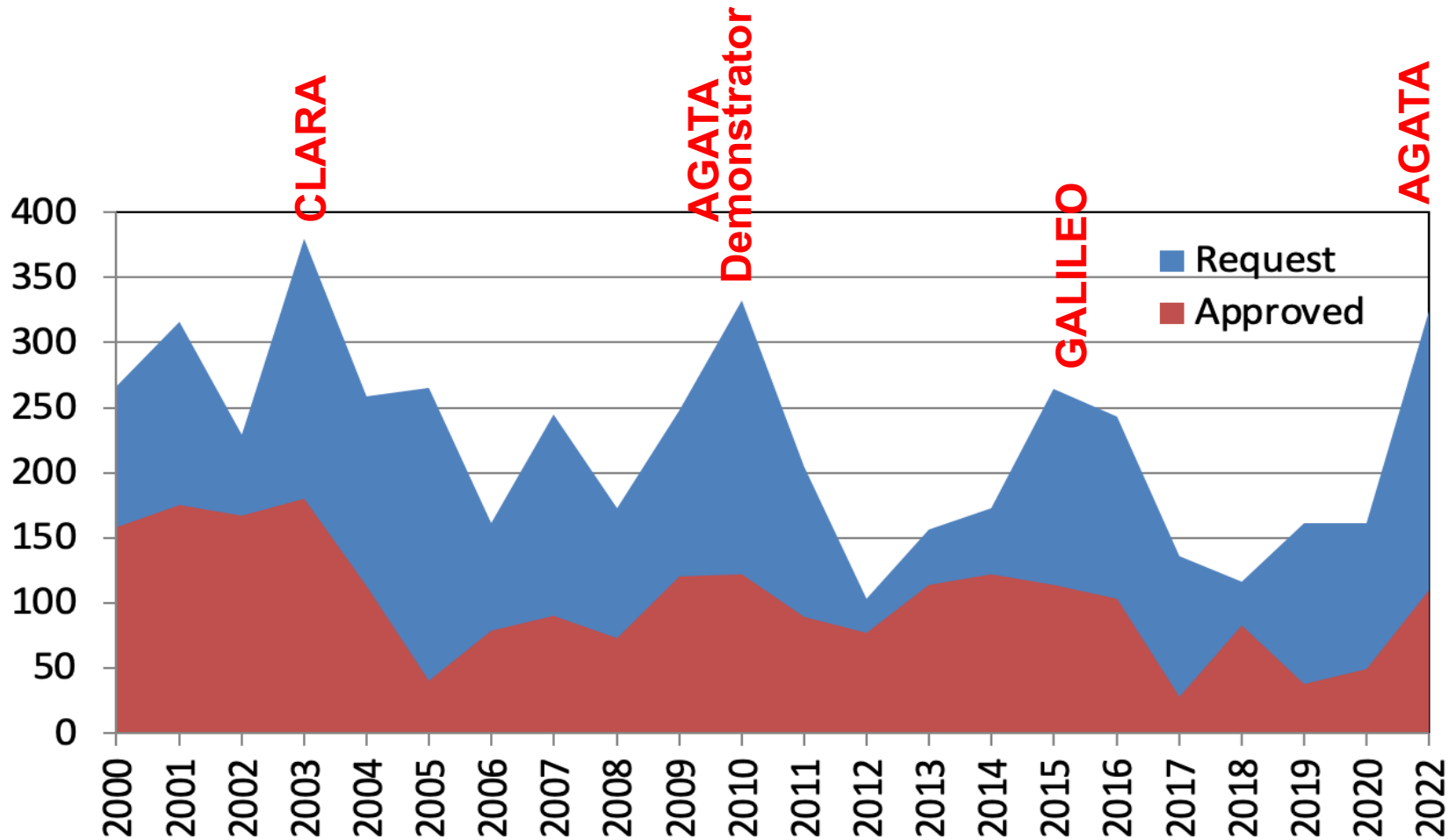
- Lol submission: September 21st, 2022

- Registration: September 28th, 2022.

There will be two PACs fixed per year

PACs in 2022: 21-23 February, 5-7 December

GAMMA peaks at Legnaro Laboratory ...



Promotion of AGATA Science

AGATA Science WHITE Book Physics Opportunity (EPJA, 2020)



W. Korten et al., EPJA56, 137(2020)

Eur. Phys. J. A (2020) 56:137
<https://doi.org/10.1140/epja/s10050-020-00132-w>

THE EUROPEAN
PHYSICAL JOURNAL A



Review

Physics opportunities with the Advanced Gamma Tracking Array: AGATA

W. Korten^{9,a}, A. Atac^{30,35}, D. Beaumel²³, P. Bednarczyk¹⁴, M. A. Bentley³⁴, G. Benzoni²¹, A. Boston¹⁷, A. Bracco^{20,21}, J. Cederkäll¹⁸, B. Cederwall³⁰, M. Ciemala¹⁴, E. Clément¹, F. C. L. Crespi^{20,21}, D. Curien³¹, G. de Angelis¹⁵, F. Didierjean³¹, D. T. Doherty¹⁰, Zs. Dombradi⁶, G. Duchêne³¹, J. Dudek³¹, B. Fernandez-Dominguez²⁷, B. Fornal¹⁴, A. Gadea³³, L. P. Gaffney¹⁷, J. Gerl⁴, K. Gladnishki²⁸, A. Goasduff²⁵, M. Górská⁴, P. T. Greenlees¹², H. Hess¹³, D. G. Jenkins³⁴, P. R. John⁵, A. Jungclaus¹⁹, M. Kmiecik¹⁴, A. Korichi²², M. Labiche³, S. Leoni^{20,21}, J. Ljungvall²², A. Lopez-Martens²², A. Maj¹⁴, D. Mengoni^{24,25}, B. Million²¹, A. Nannini⁸, D. Napoli¹⁵, P. J. Nolan¹⁷, J. Nyberg³², A. Obertelli⁵, J. Pakarinen^{11,12}, N. Pietralla⁵, Zs. Podolyák¹⁰, B. Quintana²⁶, R. Raabe¹⁶, G. Rainovski²⁸, F. Recchia^{24,25}, P. Reiter¹³, D. Rudolph¹⁸, J. Simpson³, Ch. Theisen⁹, D. Tonev²⁹, A. Tumino^{2,7}, J. J. Valiente-Dobón¹⁵, O. Wieland²¹, K. Wimmer¹⁹, M. Zielńska⁹, the AGATA Collaboration

¹ GANIL, CEA/DRF-CNRS/IN2P3, Bd. Henri Becquerel, BP 55027, 14076 Caen Cedex 05, France

² Laboratori Nazionali del Sud, INFN, Via S. Sofia 62, 95123 Catania, Italy

³ Daresbury Laboratory, UKRI-STFC, Daresbury, Warrington WA4 4AD, UK

⁴ GSI Helmholtzzentrum für Schwerionenforschung GmbH, Planckstrasse 1, 64291 Darmstadt, Germany

⁵ Institut für Kernphysik, Technische Universität Darmstadt, Schlossgartenstrasse 9, 64289 Darmstadt, Germany

⁶ Institute for Nuclear Research, Hungarian Academy of Sciences, Bem Square 18/c, 4026 Debrecen, Hungary

⁷ Facoltà di Ingegneria e Architettura, Università di Enna Kore, 94100 Enna, Italy

⁸ INFN, Sezione di Firenze, 50125 Florence, Italy

⁹ Irfu, CEA, Université Paris-Saclay, 91191 Gif-sur-Yvette, France

¹⁰ Department of Physics, University of Surrey, Guildford GU2 7XH, UK

¹¹ Helsinki Institute of Physics, 00014 Helsinki, Finland

¹² Department of Physics, University of Jyväskylä, P.O. Box 35, 40014 Jyväskylä, Finland

¹³ Institut für Kernphysik, Universität zu Köln, Zulpicher Straße 77, 50937 Cologne, Germany

¹⁴ Institute of Nuclear Physics, Polish Academy of Sciences, 31-342 Kraków, Poland

¹⁵ Laboratori Nazionali di Legnaro, INFN, Viale dell'Università, 2, 35020 Legnaro, Italy

¹⁶ Instituut voor Kern- en Stralingsfysica, KU Leuven, 3001 Leuven, Belgium

¹⁷ Oliver Lodge Laboratory, University of Liverpool, Liverpool L69 7ZE, UK

¹⁸ Department of Physics, Lund University, 221 00 Lund, Sweden

¹⁹ Instituto de Estructura de la Materia, CSIC, Madrid, 28006 Madrid, Spain

²⁰ Dipartimento di Fisica dell'Università degli Studi di Milano, 20133 Milan, Italy

²¹ INFN, Sezione di Milano, Via Celoria 16, 20133 Milan, Italy

²² CSNSM, CNRS/IN2P3, Université Paris-Sud, Université Paris-Saclay, 91405 Orsay, France

²³ Institut de Physique Nucléaire, CNRS-IN2P3, Université Paris-Sud, Université Paris-Saclay, 91406 Orsay, France

²⁴ INFN, Sezione di Padova, 35131 Padua, Italy

²⁵ Dipartimento di Fisica e Astronomia dell'Università degli Studi di Padova, 35131 Padua, Italy

²⁶ Departamento de Física Fundamental, Universidad de Salamanca, 37008 Salamanca, Spain

²⁷ Universidade de Santiago de Compostela, 15754 Santiago de Compostela, Spain

²⁸ Department of Atomic Physics, Faculty of Physics, University of Sofia, 1164 Sofia, Bulgaria

²⁹ Institute for Nuclear Research and Nuclear Energy, Bulgarian Academy of Sciences, 1784 Sofia, Bulgaria

³⁰ Department of Physics, KTH Royal Institute of Technology, 106 91 Stockholm, Sweden

³¹ Université de Strasbourg, CNRS, IPHC UMR 7178, 67037 Strasbourg, France

³² Department of Physics and Astronomy, Uppsala University, 75120 Uppsala, Sweden

³³ Instituto de Física Corpuscular IFIC, CSIC-University of Valencia, 46980 Paterna, Valencia, Spain

³⁴ Department of Physics, University of York, Heslington, York YO10 5DD, UK

³⁵ Department of Physics, Ankara University, 06100 Tandogan, Ankara, Turkey

Topical Issue on AGATA in EPJA (deadline: 15 December 2022)

Advancements in science and technology

Managing Editors: M. Borge, N. Alamanos

Guest Editors: S. Leoni, W. Korten (ACC), E. Clement, A. Gadea (AMB), A. Bracco, J. Simpson (ASC)

1) Preface

Editors: S. Leoni, W. Korten, E. Clement, A. Gadea, A. Bracco, J. Simpson

2) Science advancements with AGATA

2.1 Nuclear structure advancements with multi-nucleon transfer reactions

Lead Author: A. Gadea

2.2 Nuclear structure advancements with fission

Lead Author: A. Lemasson

2.3 Nuclear structure advancements with fusion reactions

Lead Authors: J. Nyberg, J.J. Valiente-Dobon

2.4 Nuclear structure advancements with direct reactions

Lead Authors: W. Catford, D. Beaumel, D. Mengoni

2.5 Nuclear structure advancements with relativistic beams

Lead Authors: M. Bentley, G. Benzoni, K. Wimmer

2.6 Nuclear structure advancements with high energy gamma rays

Lead Author: F. Camera

3) Technical advancements with AGATA

3.1 Mechanical implementations and infrastructures

Lead Authors: J. Simpson, B. Million

3.2 Electronics

Lead Authors: A. Gadea, E. Clement

3.3 Software developments

Lead Authors: O. Stezowski, J. Dudouet

4) Performances of AGATA

4.1 Review of the last decade Pulse Shape Analysis activities

Lead Authors: A. Boston, P. Reiter

4.2 Performances of tracking algorithms

Lead Authors: J. Ljungvall, F. Crespi

4.3 System performances under different conditions

Lead Authors: A. Korichi, A. Goasduff

4.4 Simulations of AGATA response and couplings with ancillaries

Lead Author: M. Labiche

4.5 Organization of the collaboration and physics campaigns


Lead Author: E. Clement

AGATA web page

<https://www.agata.org>

maintained by Johan Nyberg

AGATA Home Page | AGATA

 Home About Organisation **Publications** Talks News Experiments - Meetings & Workshops - Grid Complementary Detectors - Links -

Log in

AGATA Home Page

The Advanced GAMMA Tracking Array (AGATA) is a European gamma-ray spectrometer used for nuclear structure studies. Click [about](#) for further information.

News

AGATA Physics Campaign at LNL: Second Pre-PAC Workshop

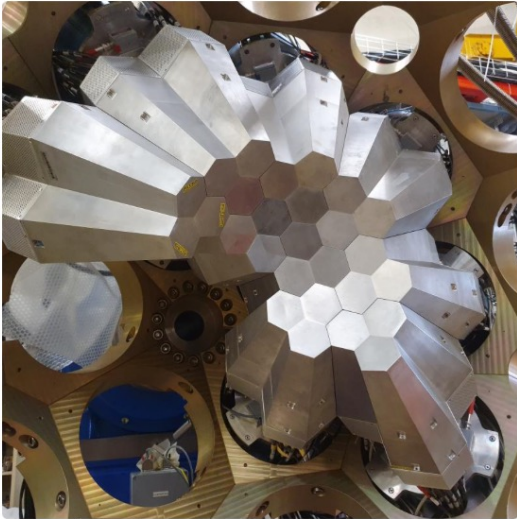
The second Pre-PAC workshop for the AGATA physics campaign at LNL will be held at LNL October 5-7, 2022
[Read more](#)

22nd AGATA Week, 10 Years Celebration, Annual Collaboration Meeting

The 22nd AGATA week, a celebration of AGATA 10 Years and the annual meeting of the AGATA collaboration will be held at LNL in Italy, 7-10 June 2022.
[Read more](#)

1 2 > »

[Display all news items](#)



Nine AGATA Triple Cryostats mounted on the array at LNL. The photo was taken 2022-04-23 and was provided by Jose Javier Valiente Dobon.

Recent Publications

New narrow resonances observed in the unbound nucleus ^{15}F

Reinterpretation of excited states in ^{212}Po : Shell-model multiplets rather than α -cluster states

Complete set of bound negative-parity states in the neutron-rich nucleus ^{18}N


The MUGAST-AGATA-VAMOS campaign: Set-up and performances

Lifetime measurements in the even-even $^{102-108}\text{Cd}$ isotopes

Evidence for enhanced neutron-proton correlations from the level structure of the $N=Z+1$ nucleus $^{87}_{43}\text{Tc}_{44}$

Full-volume characterization of an AGATA segmented HPGe gamma-ray detector using a ^{152}Eu source

[More ...](#)


[Contact form](#) [Webmaster](#) [Web design](#)

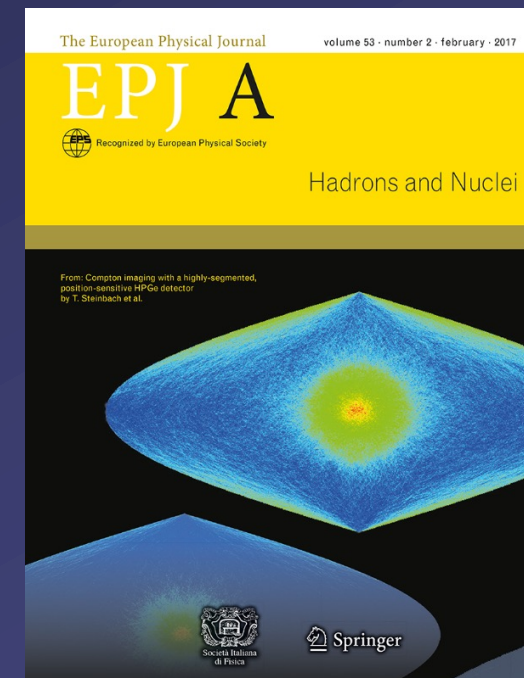
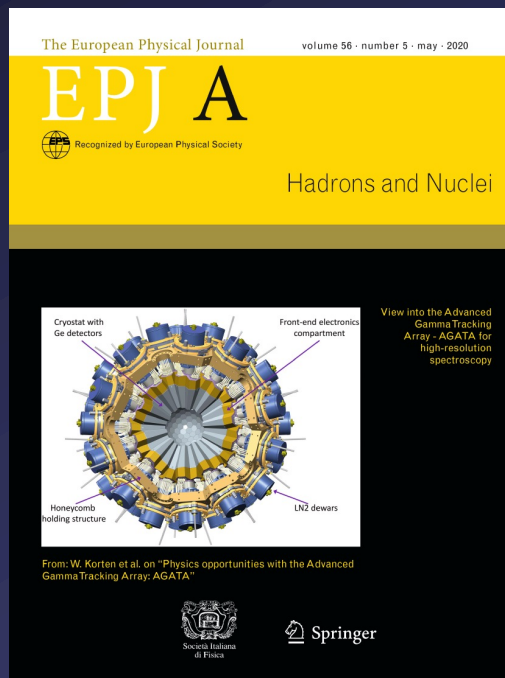
Track Record: scientific and technical publications

R&D, 3 Experimental campaigns LNL 2010-2012, GSI 2012-2014, GANIL 2014-2021

86 scientific publications (10 PRL/PL)
108 technical publications

65 PhDs, 4 Habilitation, 1 Licentiate, 18 Masters, 9 Diplomas, 11 Bachelor, 1 Licentiate (15/2/22)

<https://www.agata.org/>



CORE LIST for LNL CAMPAIGN has been set up

- it has been collated by the ASC**
- core list members proposed by the countries representatives**

Ready for LNL publications ...

Data Management Plan

some work is now requested to the ACC

... a meeting of ACC will be called on this issue after summer

Open science, open data
Data Management Plan
for AGATA Phase 2

O.Stézowski

On behalf of the Data Processing Group

Work from dedicated DMP meetings March 2021 ☞ June 2021

we need to define a DATA Management Plan

(it will be requested at various levels: European call, funding Agency, etc...)

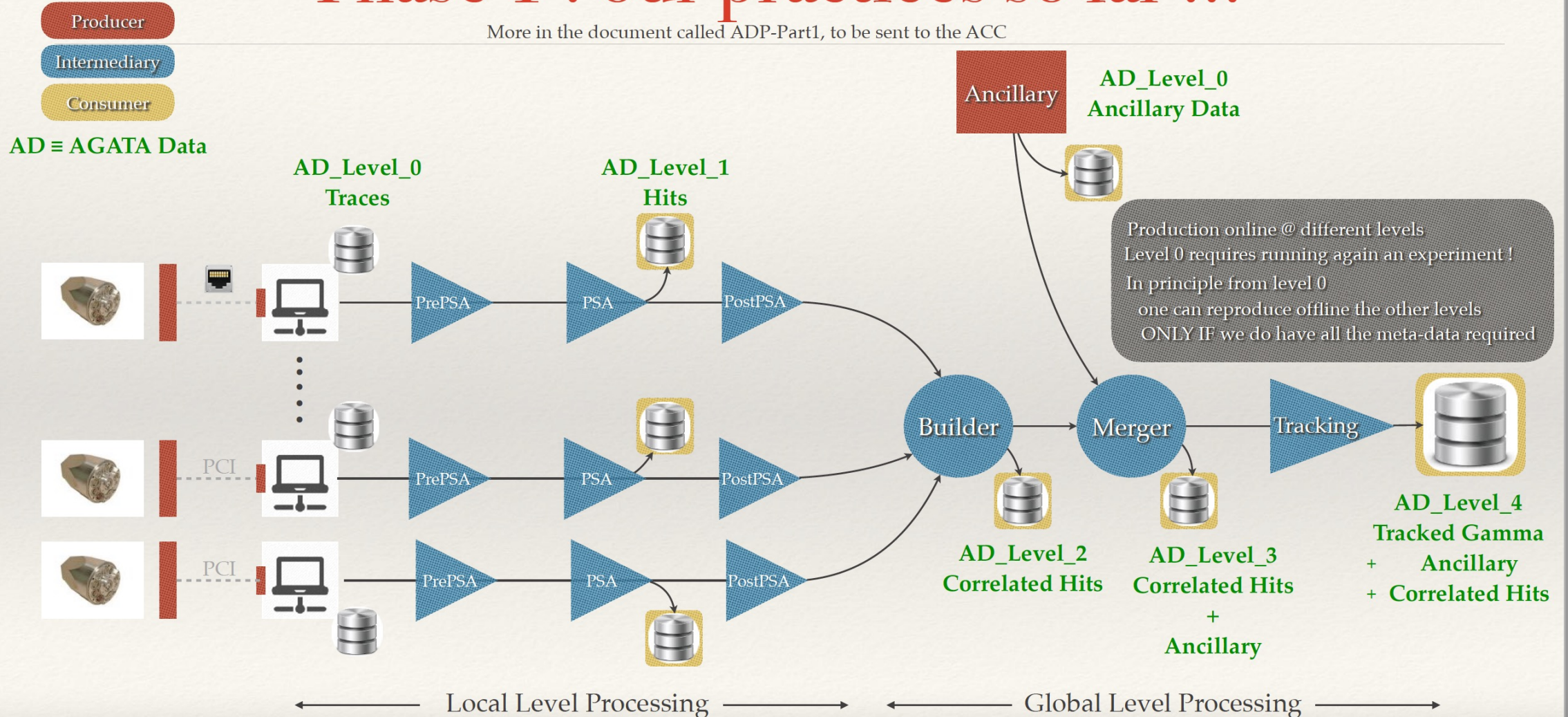
- dedicated Data Processing Group
- few decisions to be taken in ACC and AMB

detailed documentation is being prepared by Data Processing Group

(2 drafts available)

Phase 1 : our practices so far ...

More in the document called ADP-Part1, to be sent to the ACC



we need now to be **FAIR**: Findability, Accessibility, Interoperability, Reusability

Questions to the ACC

Dealing with ONLINE DATA

Level 0, true raw data

(Traces in case traces are kept, hits otherwise ... = requires a beam to have it)

Period of retention for the spokesperson ?

How long the data should be kept ? ... procedure to delete a data set ?

Level 1, could be in principle recovered from Level0 Raw data

Period of retention for the spokesperson ?

How long the data should be kept ?

Last level, could be in principle recovered from previous Levels

Period of retention for the spokesperson ?

How long the data should be kept ?

Metadata

Ok to add the full proposal to the meta data ?

At least a short version ?

What relevant information in this case ?

Questions to the ACC

Dealing with OFFLINE DATA

Should we ask/force a user of AGATA Data to give back the data he has produced with it ?

Of course with meta data : remember it is likely to be required to publish paper

If yes :

Procedure ? Through the same 'core list' procedure ?

AMB in charge ?

Same questions regarding the life time of such data set

Period of retention for the producer of the data set ?

How long the data should be kept ?

Remember in principle this new data set could be reproduced using the provided meta data ...

Some documentations

Many evolution of our management of the data (+meta) foreseen
It has just started ... more to come, progressive modifications

Already some documentation produced on this subject

Critical Analysis of our way to manage data: [here](#)

Our first Data Management Plan: [here](#)

More detailed Talk presented at the previous ACC [here](#)

[After Summer: ACC meeting to start discussion on this issue](#)

- ASC report (A. Bracco)
- AMB report (E. Clement)