

S. Muanza, CPPM Marseille, CNRS-IN2P3

First Biennial African School on Fundamental Physics and its Applications

Outline

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- Organization
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- Sponsors

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- Outreach & Forum Day

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- Organization Committee Evolution (DESY)
- Specific Requests to IN2P3

ASP Project

Aims

- Bring opportunities to students and young researchers in sub-Saharan Africa to learn about and to:
 - participate to research in subatomic physics
 - to develop south-south, south-north scientific network & collaborations
- Develop capacity-building in Africa
- Develop knowledge on cutting-edge technologies

Mean

- Organize a summer school every second year in sub-Saharan Africa
- Fully support (travel, accomodation, meals) selected students from this region

ASP Project

Build-up

- **John Ellis** suggested me this idea back in 2000. I started working on this in 2001-2002 at FNAL essentially looking for contacts with scholars and researchers working in Africa
- I revived the project in late 2007 at IPN Lyon. At this points I had several contacts in Africa, a few colleagues eager to participate but I was missing a person experienced with the administration and especially the financial aspects. This was solved with the involvement of **Anne-Marie Ferrer** who was the administrative director of IPN Lyon at the time.
- Late 2007-2008: Together with **John Ellis** we started meetings with the people organizing both the « European School of Physics » and the « Latin American School of Physics »: **Pr E. Lillestöl** and **Mrs D. Métral**. We learnt a lot from their experience.
- 2008-2009: I went on regrouping colleagues committed to this project till we reached a critical mass. Our train was then on track...

ASP Project

Organization

International Organizing Committee

B. Acharya: Staff @ ICTP, IT
K. Assamagan: Staff @ BNL, USA
H. Bachacou: Staff @ CEA, FR
C. Darve: Eng. @ FNAL, USA
J. Ellis: Co-founder, Financial Head, Staff @ CERN, CH
E. G. Ferreira: Staff @ U. Santiago de Compostela, SP
J. Govaerts: Pr @ Louvain U., BE
J. Huston: Pr @ MSU, USA
M. Kado: Staff @ LAL, FR
Y-K. Kim: Deputy-Director @ FNAL, USA
H. Montgomery: Director of JLAB, USA
S. Muanza: ASP Director, Co-Founder, Staff @ CPPM, FR
S. Narison: Head of HEPHAD, Staff @ LPTA Montpellier, FR
P. Skands: CERN, CH

Honorary Members

B. Bardeen (FNAL, USA)
I. Giomataris (CEA, FR)
L. Lederman (FNAL, USA) - *Nobel Laureate*

Local Organizing Committee

B. Becker: Head of SA Grid, Meraka Inst., SA
J. Cleymans: Pr @ U. of Cape Town, SA
S. Connell: Pr @ U. of Johannesburg, SA
A. Dabrowski: post-doc @ CERN, CH
H. Gray: PhD Student @ Columbia U., USA
C. Lee: PhD Student @ U. of Johannesburg, SA
T. Vickey: Pr @ U. Witswatersrand, SA
Z. Vilakazi: Director of iThemba LABS, Cape Town, SA

Website:

<http://cern.ch/AfricanSchoolofPhysics>

Administrative and Financial expertise is provided by Mrs. A. M. Ferrer (IN2P3 & ICBMS, Lyon). The Organizing Committee further relies on two external advisors with extensive experience on organizing schools of physics, Mrs. D. Metral (CERN) and Dr. E. Lillestol (CERN & U. of Bergen).
Special thanks to: R. Tabrizi (SFU, CA), V. Baron (French Embassy, Pretoria, SA),...

ASP Project



Sponsors

- Physics Institutions:
 - France:
 - CNRS:
 - IN2P3
 - Institut des Grilles
 - Switzerland:
 - CERN
 - EPFL
 - PSI
 - Governmental Agencies:
 - Spain:
 - Ministry of Foreign Affairs
 - AECID → U. Santiago de Compostela
 - USA:
 - DOE → FNAL
 - DOE → MSU
 - Private Companies:
 - Contract for Group Travel signed with South African Airways
 - Turned out to be unapplicable!!!
- Italy:
 - ICTP (UNESCO)
 - USA:
 - JLAB
 - BNL
 - SA:
 - NITheP
 - NRF



ASP Project

Venue

- NITheP in Stellenbosch:
 - 40 km away from Cape Town, close to its international airport
 - Recent theory lab run within by private company through the STIAS
 - Auditorium: lectures
 - Separate rooms: discussion sessions, lecturers
 - Hall & terrace: catering, coffee/tea breaks
 - Hall: posters, registration desk
 - Internet access: wifi
 - ...
 - Nice, but rather expensive and unclear about the actual rates!
- Rich research and academic region:
 - University of Cape Town
 - University of Western Cape
 - University of Stellenbosch
 - iThemba Labs
 - AIMS (African Institute for Mathematical Sciences)

Academic Aspects

Program

- Long format: 3 weeks =>
 - 1st week: theoretical aspects
 - 2nd week: experimental aspects of particle/cosmology/nuclear physics
 - 3rd week: accelerator physics and technological applications
- Upon the request of the local organizing committee and the scholars contacts in other african countries:
 - Heavy Ion Collisions physics (ALICE group at UCT)
 - Applications: medical physics, lasers
- Full Indico agenda including lecture material available at <http://indico.cern.ch/conferenceTimeTable.py?confId=78565>

Academic Aspects

Lectures

- About 100 lecture hours
- Good academic level, comparable to other HEP schools

Discussion Sessions

- 1h for 3 or 4 lecture hours
- Meant to address questions students might have about the lectures
- 4 smaller groups: lower the barrier for shy students to ask questions (TH students, 2 EX students, french speaking students)

Academic Aspects

Labs

- TH: MC Generators, u. Stellenbosch, P. Skands
- EX:
 - Geant4, U. Stellenbosch, A. Dotti
 - ROOT, U. Stellenbosch, A. Dotti
 - Lasers, U. Stellenbosch, E. Rohwer
 - Scintillation detectors, iThemba Labs, S. Förstch
 - Measurement of environmental radioactivity, iThemba Labs, ?

Academic Aspects

Students

- Advertisement:
 - Essentially by e-mails
 - Through african scholars contacts
 - Through science web forum
- Selection:
 - CV-based
 - Plus: letters of recommendation and letter of motivation
 - Selection committee formed within the organization committees
 - Important feed-back from professors having experience on the african ground and from african scholars



Academic Aspects

Students

- School course:



Academic Aspects

Students

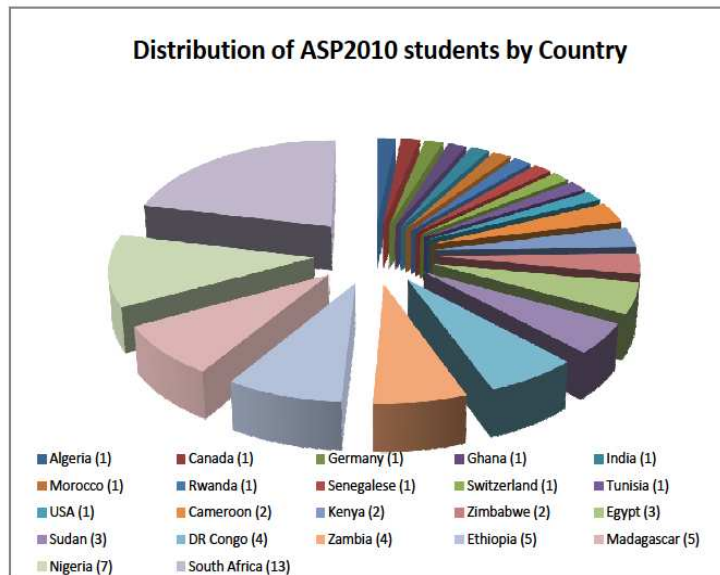
- School course: discussion session



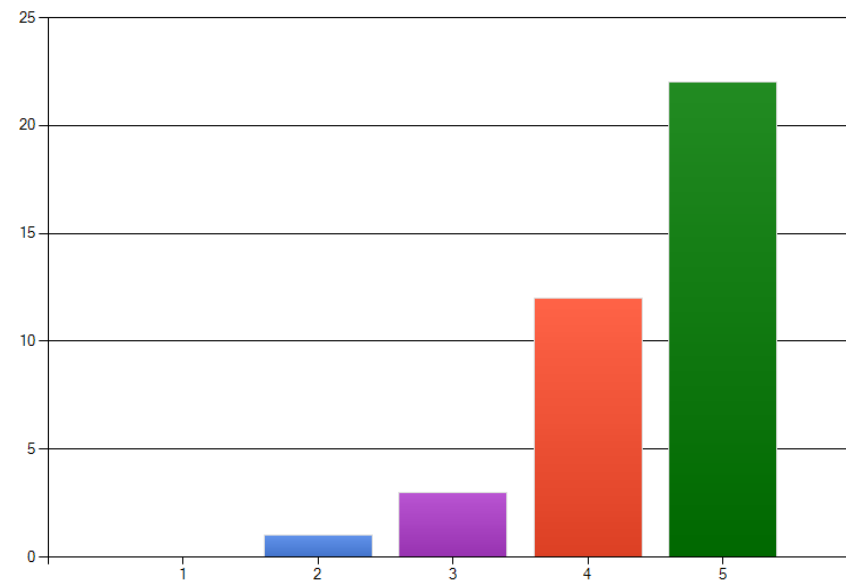
Academic Aspects

Students

- After School: feed-back (2 surveys)



On a scale of 1 to 5, where 1 is not satisfied, 3 is somewhat satisfied and 5 is very satisfied, how satisfied are you with your overall experience at ASP2010?



Satisfaction

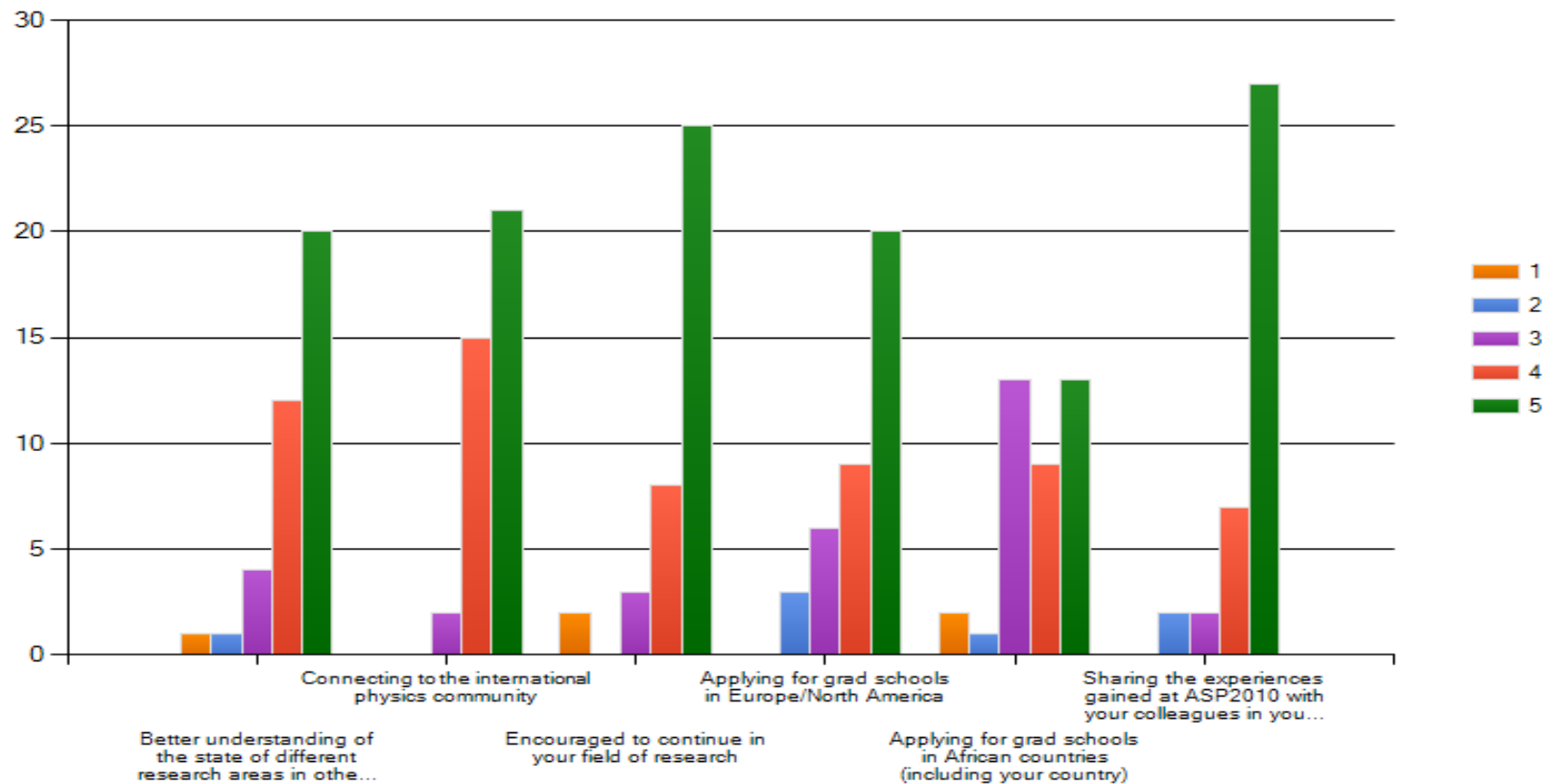
16% of female

Academic Aspects

Students

- After School: feed-back (2 surveys)

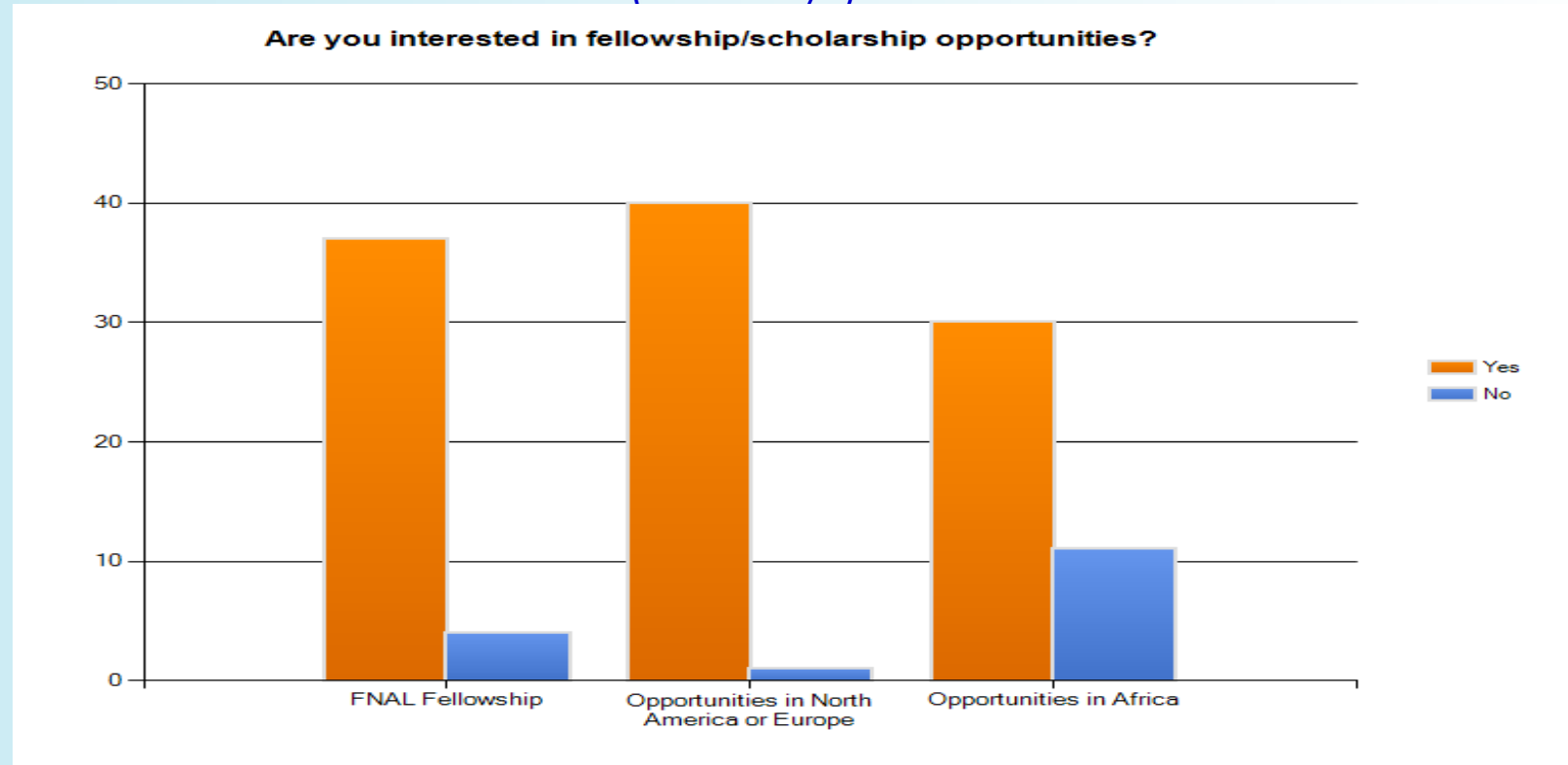
On a scale of 1 to 5, where 1 is no impact at all, 3 is somewhat of an impact, and 5 is a major impact, how much of an impact do you believe that participation at the ASP2010 has had in terms of:



Academic Aspects

Students

- School course: feed-back (2 surveys)



- I delivered signed certificates of attendance after checking the actual student assiduousness
- Students got a DVD w/ the lecture material and some of the lectures were filmed

Outreach

Public Lectures

- John Ellis, Christine Darve, Steve Muanza:
 - Canal Walk Science Center
 - august 6th



- Ketevi Assamagan, Anne Dabrowski:
 - Canal Walk Science Center
 - august 6th



Outreach

Saturday Aug 21st - Outreach/Forum Day: A Gateway to Innovation

==> [Presentation of the Day](#) and [Detailed ASP2010 timetable via Indico](#)

[ASP Closure of ASP2010 and Introduction of Outreach, Forum Day](#)

Christine DARVE (ASP2010 Main organizer)

[DST Address](#)

Daniel ADAMS (Chief Director: Emerging Research Areas & Infrastructure - Human Capital and Knowledge Systems)

Lectures:

[Road Map for Discoveries at Hadron Colliders](#)

Peter JENNI (former ATLAS Spokesperson)

[Roadmap to High Energy Physics: SA-CERN and ALICE](#)

Jean CLEYMANS (SA-CERN Spokesperson)

[Particle accelerators: ships of discovery, engines of development](#)

Philippe LEBRUN (Former Head of CERN Accelerator Technology Department)

[CERN – A Gateway to Collaboration & Innovation](#)

Emmanuel TSESMELIS (CERN Director-General Adviser)

[Energetics and Nuclear Fusion](#)

Norbert HOLTKAMP (ITER Principal Deputy Director General)

[Progress in particle therapy in Europe](#)

Manjit DOSANJH (ENLIGHT Coordinator and Life Sciences Adviser)

[DST Meeting - Address](#)

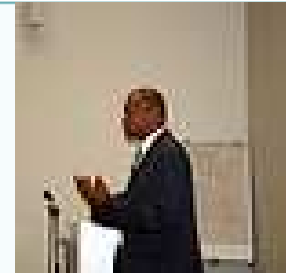
Daniel ADAMS (Chief Director: Emerging Research Areas & Infrastructure – Human Capital and Knowledge Systems)

Posters:

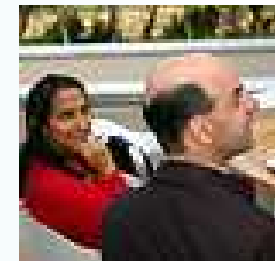
[Naima Zahar](#) :Fast neutron filter design for the neutron diffraction technique

[Ahmed Rebai](#) : Radio Detection of Ultra High Energy Cosmic Rays With The CODALEMA Experiment

Ref: [Global Network @ CERN \(KIT\)](#)



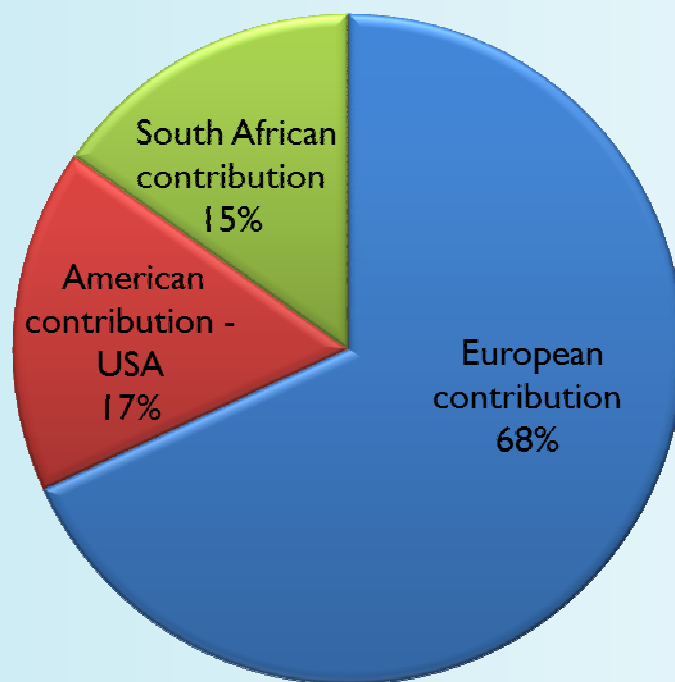
D. Adams, DST



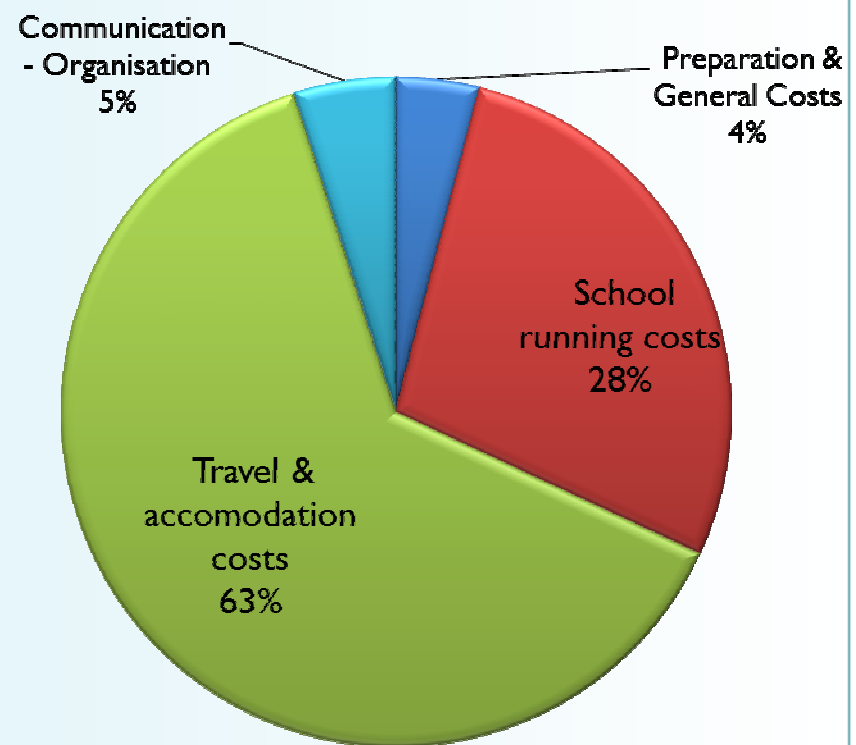
M. Dosanjh, E. Tsismelis, CERN

Financial Section

Incomes	amounts in EUR	Expenses	amounts in EUR
European contribution	106,970	Preparation & General Costs	6,300
U. Santiago de Compostela / Ministry of Foreign Affairs – AECID - Spain	30,000	Meetings of the international committee	5,000
CNRS IN2P3 - France	28,000	Secretariat and logistics	1,300
International Centre for Theoretical Physics (ICTP) - Italy	25,000	School running costs	43,884
CERN (20000 CHF) - Switzerland	13,970	Classroom renting, coffee breaks, catering	35,896
CNRS Institut des Grilles - France	3,000	Internet and wifi (U. Stellenbosch)	2,080
CEA - France	4,000	Transportation (shuttles & car renting)	3,063
Paul Scherrer Institut (PSI) and Ecole Polytechnique Federale de Lausanne (EPFL) - Switzerland	3,000	Insurance for non-SA students	1,969
American contribution - USA	26,180	Students local expenses	876
FNAL - Fermi National Acc. Laboratory / DOE -(10 k\$)	7,930	Travel & accomodation costs	99,162
JLAB - Thomas Jefferson National Acc. Facility - (10 k\$)	7,930	Travel & accommodation Students	54,424
BNL - Brookhaven National Laboratory - (5 k\$)	3,970	Travel & accomodation lecturers and tutors	38,302
MSU - Michigan State University / DOE - (8 k\$)	6,350	Social events	
		Excursion 08/08/2010	2,940
South African contribution	23,920	School Banquet 15/08/2010	3,496
NITheP - National Institute for Theoretical Physics, Stellenbosch - (150000 ZAR)	15,600	Communication - Organisation	7,724
NRF - National Research Foundation, Pretoria - (80000 ZAR)	8,320	Videoconferences & broadcasts	4,205
		Committee organising expenses	2,136
		School package & lectures material DVD	315
		Contingency / remaining	1,068
Total incomes	157,070	Total expenses	157,070

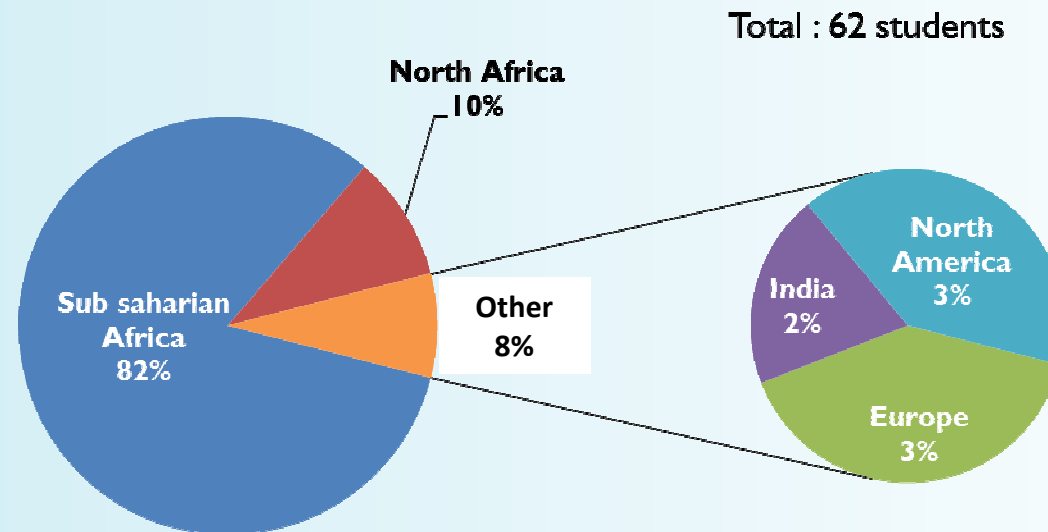


INCOMES



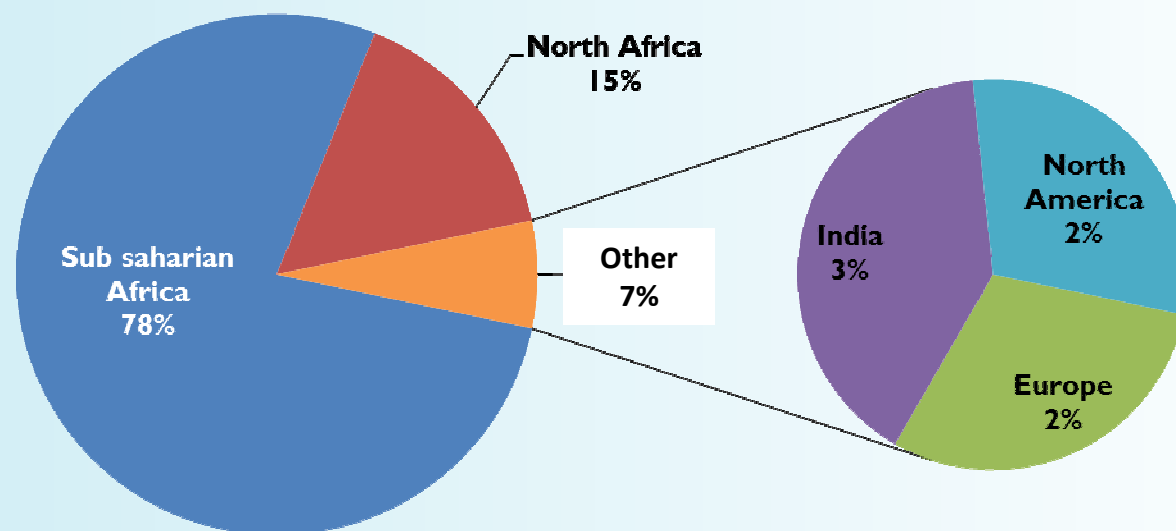
EXPENSES

Students distribution

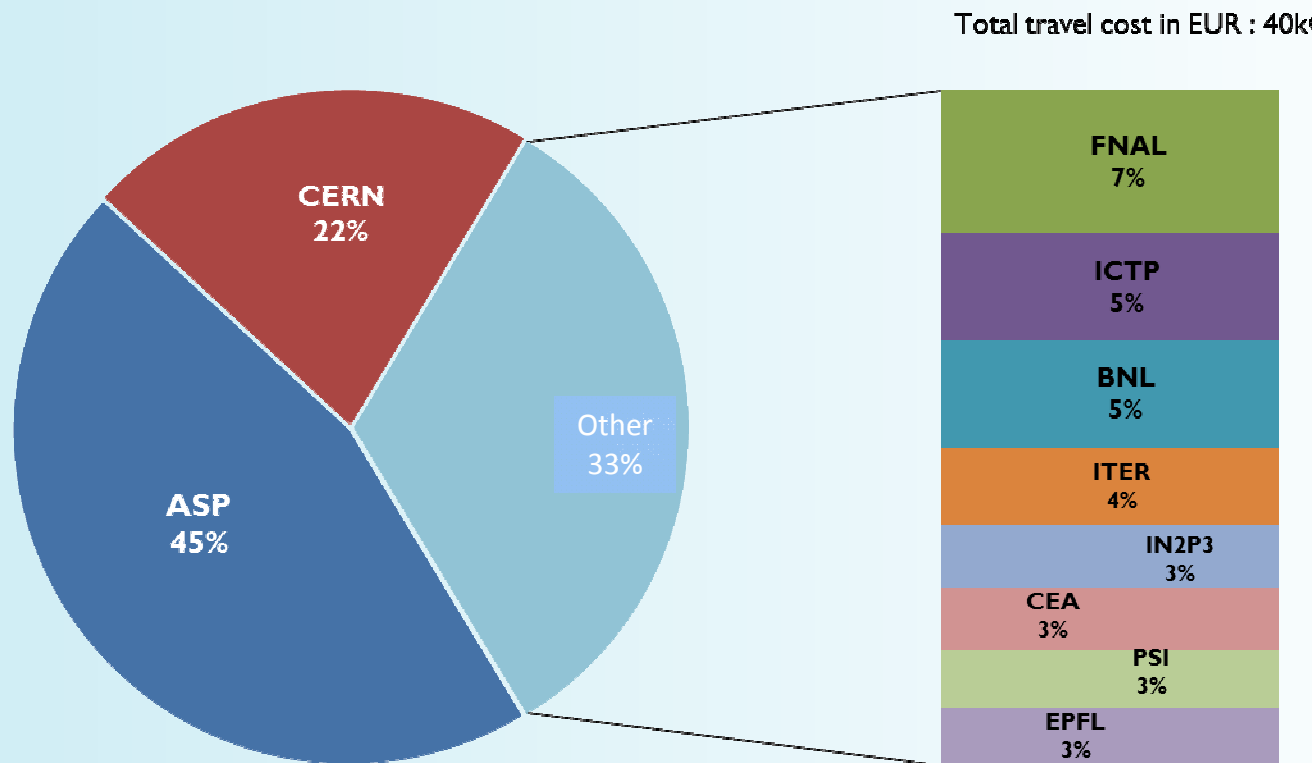


Students distribution 2

Total travel & accomodation : 63k€

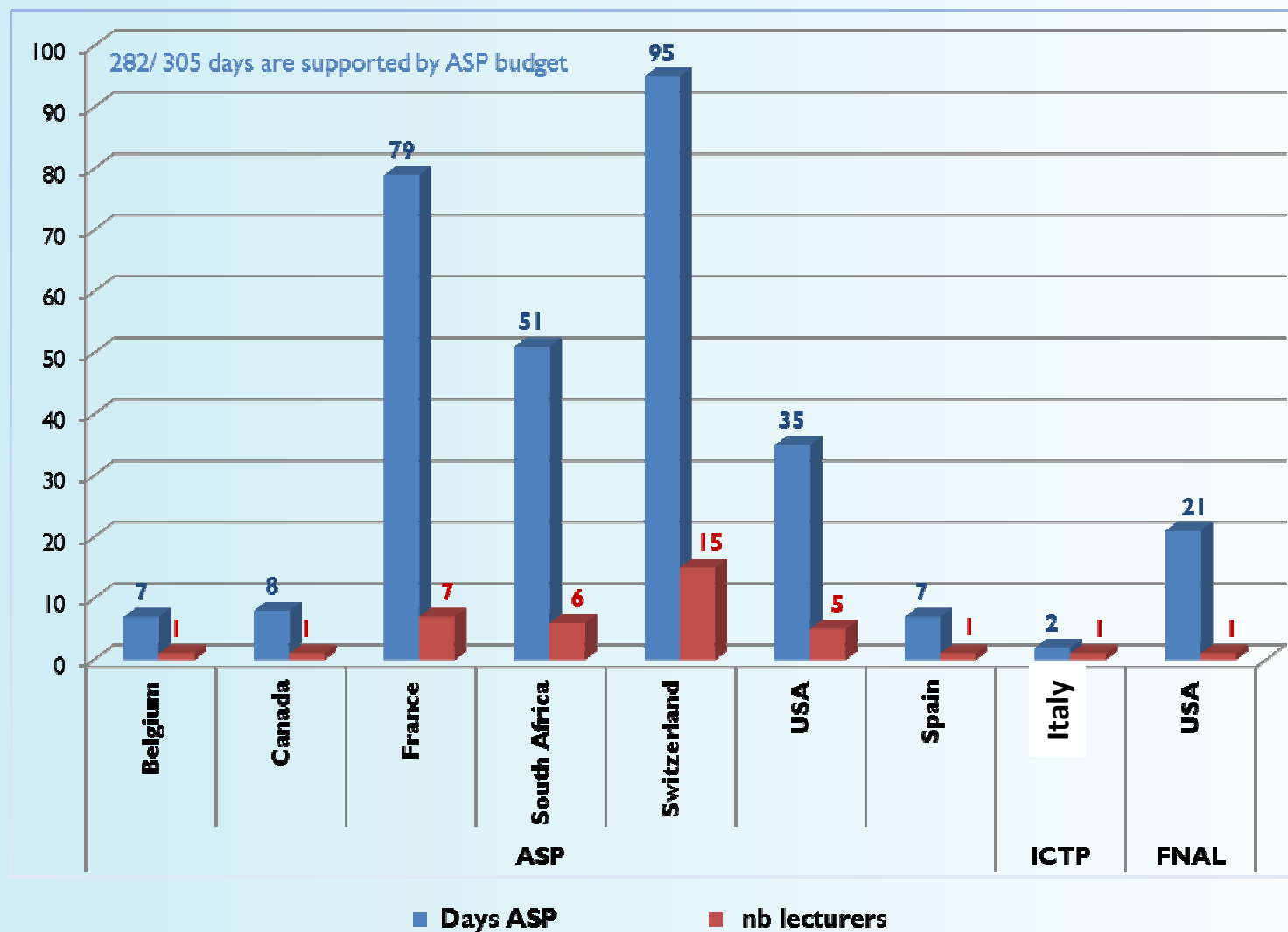


Lecturers travel costs : ASP support



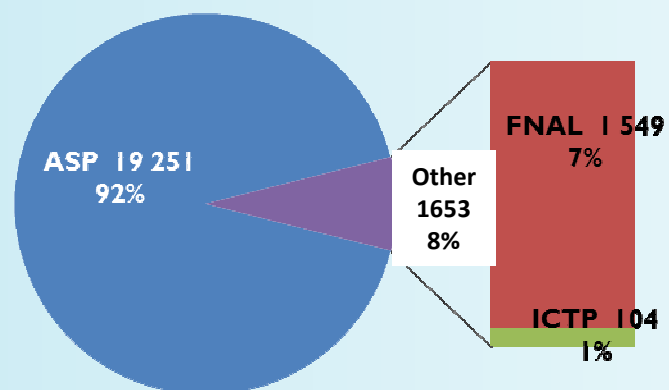
Budget for travel costs of 45 lecturers (38 from Europe and US and 7 locals)

Lecturers accomodation costs

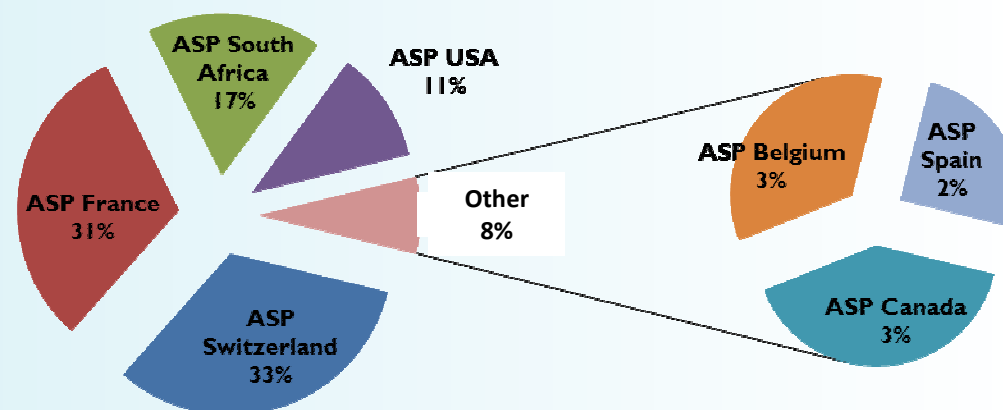


Accommodation : total of 305 nights for 38 lecturers (282 supported by ASP budget)

Lecturers accomodation costs : 21k€



distribution ASP accomodation budget (19K€)



Lecturers accomodation costs

Accomodation Budget ASP	Country	Days ASP	Nb Lecturers
	Belgium	7	1
	Canada	8	1
	France	79	7
	South Africa	51	6
	Switzerland	95	15
	USA	35	5
	Spain	7	1
Total ASP		282	36
ICTP	Italia	2	1
Total ICTP		2	1
FNAL	USA	21	1
Total FNAL		21	1
Grand Total		305	38

Lecturers accomodation costs

Accomodation Budget	Cost (€)
ASP	19,251
FNAL	1,549
ICTP	104
Grand Total	20,904

Accomodation Budget	Country	Cost (€)
ASP	Switzerland	6,302
	France	5,970
	South Africa	3,371
	USA	2,137
	Canada	590
	Belgium	516
	Spain	364
Total ASP		19,251
Grand Total		19,251

Prospects

ASP2012 Venue

- Currently in discussion within our organization committees
- No decision before late november or so
- I'm following-up the application of:
 - Senegal:
 - Contacts:
 - Pr A. Wagué (UCAD)
 - Director of the Institute of Applied Nuclear Technologies
 - Vice-president of the African Physical Society
 - Member of the IUPAP (C13: « Physics for Development »)
 - Dr M'Backé Diop (CEA, Gif)
 - Pr V. Rivasseau (LPTH Orsay + AIMS Dakar)
 - The 3 would agree to start a local organizing committee if Dakar is selected
 - Cameroon: waiting for inputs
 - A colleague is following-up: Ghana, Nigeria

Prospects

Evolution of the Organizing Committee

- Disclaimer: This is very preliminary and should be discussed with the full current organizing committee. Any decision will be taken within this body exclusively

Executive Board

- S. Muanza, Director
- K. Assamagan, Deputy Director
- J. Ellis, Financial Manager
- C. Darve, Main Organizer
- A.-M. Ferrer, Financial & Admin. Executive

1 vote per person

Board of External Experts

- Medical Applications,
- Laser Physics,
- Nuclear Fusion,...

ASP Friends

- Individuals committed to help ASP

Not full, nor permanent members of OC
No votes

Institutional Board (1 vote/inst. + MoU)

- IN2P3: E. Augé + M. Kado
- CEA: U. Bassler/B. Mansoulié + H. Bachacou
- Inst. des Grilles: V. Breton + G. Wormser?
- CERN: Heuer/Tsesmelis/Pauss? + Dabrowski
- FNAL: Y.K. Kim + ???
- JLAB: H. Montgomery + L. Elhouadriri
- BNL: ??? + ???
- PSI & EPFL: ??? + L. Rivkin
- SA-CERN: J. Cleymans + Z. Vilakazi/T. Vickey
- SAIP: B. Masara + S. Connell/T. Vickey
- ICTP: F. Quevedo + B. Accharya
- U. of Compostela: ??? + E.G. Ferreira
- MSU: Joey Huston

- ITER?
- **DESY**
- SLAC?
- INFN?
- NSF?

Local Organizing Committee (1 vote, no MoU)

- ???

Prospects

Specific Request to IN2P3

- Support for an exploratory visit to the ASP2012 host in 2011
- Some initiatives regarding the ASP communication
- May be a contact person to submit a fund request to MAE?