



School of Physics in Sub-Saharan Africa



PLAN

- I. Introduction
- II. Organisation at CERN
- III. Involvement of the IN2P3
- IV. Project Start-up:
 - First Host Institution
 - Other Partner Countries



I. Introduction



- **Purpose: Extend & Adapt the Concept of « European School of Physics » to the african continent**
 - Bring more teams to contribute to CERN programs
 - Provide high level graduate training & contacts for students in developping countries
- **Model: Extension of the European School of Physics to Latin America (Centro Latino Americano de Fisica, <http://www.claf-fisica.org>)**
- **Frequency: Propose a Summer School every second years in a Sub-Saharan African country**
- **Start-Up: First School in South Africa, Wits U. in Johannesburg in august/september 2010**
- **Two weeks program:**
Reminders of Special Relativity, Quantum Mechanics, Group Theory
From the principles of QFT to the SM
Subatomic Physics Applications (Instrumentation, Spin Offs) + IT



II. Organisation at CERN



- **Standing Committee : (last meeting @ CERN, march 5th 2008)**
 - *John R. Ellis*, CERN, TH, resp. des rel. Pays non-mbres
 - *G. Steve Muanza*, IPNL D0, (CPPM ATLAS)
 - *Anne Marie Ferrer*, ICBMS, Admin+Financ. (chargée de mission IN2P3)
 - *Peter Skands*, CERN, TH
 - *Christine Darve*, CERN, Acc. Div.
 - *Ketevi A. Assamagan*, BNL (ATLAS)
 - *Marumi Kado*, LAL (ATLAS)
 - + *Elena Gonzalez Ferreiro*, TH , Santiago de C., LLR
- + **Advisors:**
- Organisers of CERN European and Latin American Schools of Physics**
 - *Egil Lillestøl* (U. of Bergen, ATLAS)
 - *Danielle Métral* (CERN, Admin.)
- **Plan:**
 - **Official Request of the CERN Directorate Support, before June 2008**
 - **Financial Requests from Institutional Funding Agencies & Privates Sponsors during 2nd semester 2008, year 2009 (CERN, IN2P3, UE, UNESCO?, Ministries of Foreign Affairs, of Cooperation,...)**



III. Involvement of the IN2P3



- **There's a parallel effort especially focussed on cooperation with Northern African countries (*Fairouz Malek, Grenoble, ATLAS*)**
- **We agreed to collaborate:**
 - **Alternate Thematic Physics Schools:**
 - **One year in Northern Africa**
 - **The next year in Sub-Saharan Africa**
- **Request for Financial Support from IN2P3**



IV. Project Start-Up - First Host Institution -

University of Witwatersrand, Johannesburg, SOUTH AFRICAN REPUBLIC

- *Pr Elias Sideras-Haddad*
 - Associate Research Officer at the National Institute called iThemba LABS
 - 200 MeV proton cyclotron + 2 Van de Graaf accelerators
 - Since 2000, chairman of:
 - Millennium Schools in Nuclear and Particle Physics and Applications
 - iThemba School on Nuclear and Particle Physics and Applications
 - **Formally agrees to host the 2010 School in South Africa**
- *Dr Simon H. Connell*
 - Senior lecturer, ATLAS group leader
 - Schonland Research Centre for Nuclear Sciences
 - **The NRF has funds for SA-JINR collaboration and also for cooperation in Africa (RISE)**
- **Collaboration w/ ATLAS-US (Columbia, BNL): grid computing?**



IV. Project Start-Up - Other Partner Countries -



University of Cape Town, SOUTH AFRICAN REPUBLIC

- **Dr Zebulon Vilakazi**
 - **Director of the iThemba LABS**
 - **Professor at U. of Cape Town**
 - **Member of ALICE at CERN**
- **Cape Town Group:**
 - **Pr Jean Cleymans (responsible for the SA-CERN Consortium)**
 - **Pr R. Fearick**
- **Collaboration w/ Northwestern U., Chicago**
 - **Dr Mayda Velasco (sent a SA student → CLAF 05)**
 - **Pr Heidi Schellman (sent a SA student → CLAF 07)**



IV. Project Start-Up - Other Partner Countries -



- **DR CONGO**: Pr Edmond Phuku Phuati
 - Université de Kinshasa
- **CONGO**: Dr Bernard M'Passi Mabiala
 - Marien Ngouabi University, Brazzaville
- **CAMEROUN**: Pr Moïse Kwato Njock
 - Douala University
 - Director of « Centre for Atomic Molecular Physics and Quantum Optics »
- **MADAGASCAR**:
 - Contact Stephan Narison (LPTA, Montpellier)
 - *iHEPMAD*: Institute of HEP, Antananarivo
 - The HEP-Madagascar Conference Series
- **NAMIBIA**:
 - check the HESS site