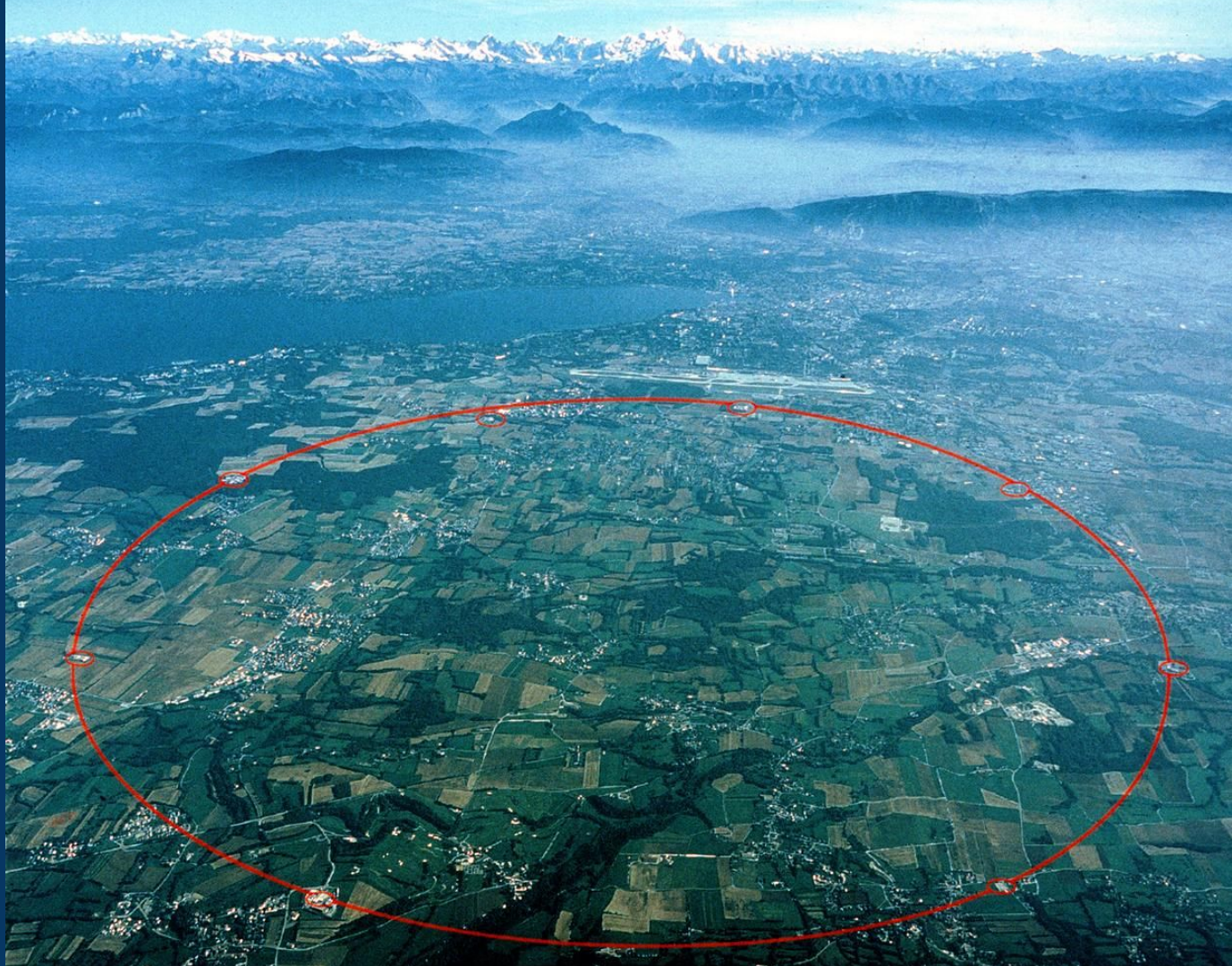
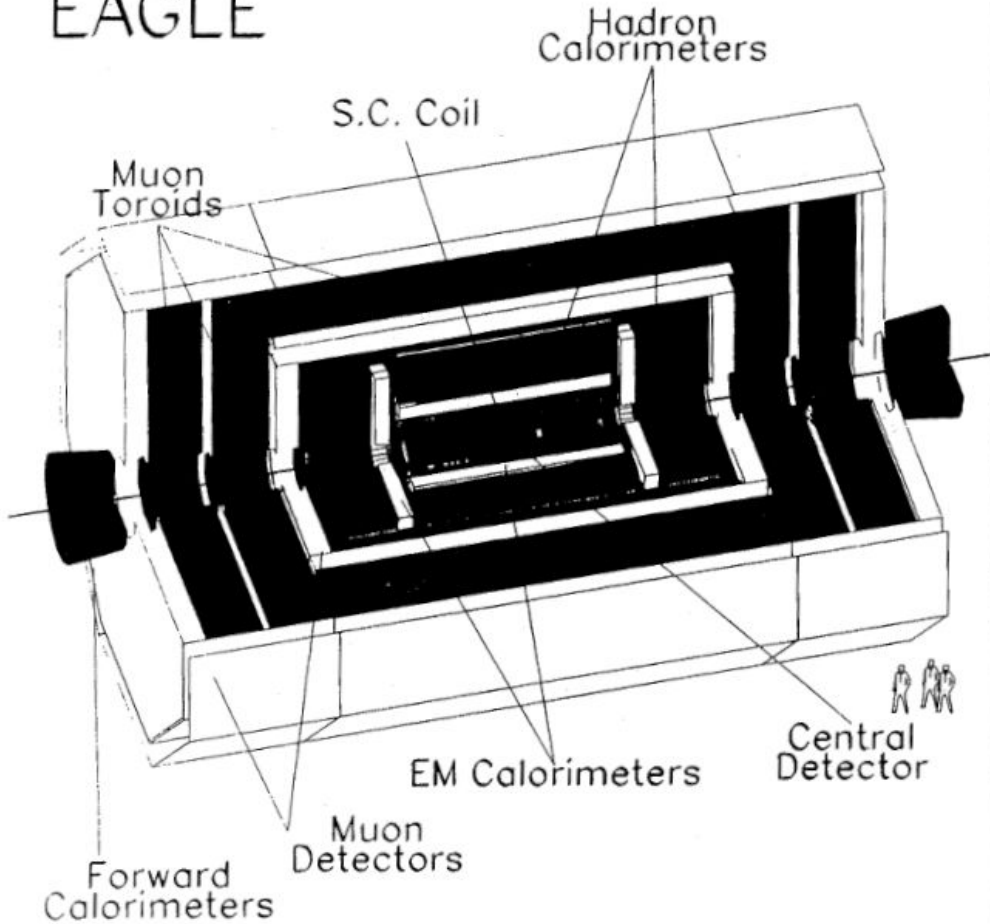


The ATLAS Years



EAGLE



EAGLE Collaboration

Alberta, Alma Ata, LAPP Annecy, Athens, NTU Athens, Bern, Birmingham, Bratislava, British Columbia, Cambridge, CERN, Clermont-Ferrand, NBI Copenhagen, Cosenza, INP Cracow, NCSR Demokritos, Dortmund, Frascati, Geneva, Glasgow, ISN Grenoble, Hamburg, Helsinki, Kosice, Lancaster, Lisbon, Liverpool, QMW London, RHBNC London, UC London, Lund, Manchester, CPPM Marseille, Melbourne, Milano, Montreal, ITEP Moscow, Lebedev Moscow, MPEI Moscow, Naples, Nijmegen, NIKHEF (Amsterdam, Nijmegen), LAL Orsay, Oslo, Oxford, Paris VI, Pavia, Pisa, Prague, CSAV Prague, IHEP Protvino, COPPE Rio de Janeiro, Rome I and II, Rutherford Appleton Laboratory, Saclay, NPI St. Petersburg, Stockholm, MSI Stockholm, Technion Haifa, Uppsala, Victoria, Vienna, Weizmann Rehovot

ATLAS

Letter of Intent
for a
General-Purpose pp Experiment
at the
Large Hadron Collider at CERN

Abstract

The ATLAS collaboration proposes to build a general purpose proton-proton detector for the Large Hadron Collider, capable of exploring the new energy regime which will become accessible. The detector would be fully operational at the startup of the new accelerator. The detector concept, the research and development work under way to optimize the detector design, and its proposed implementation are described, together with examples of its discovery potential.

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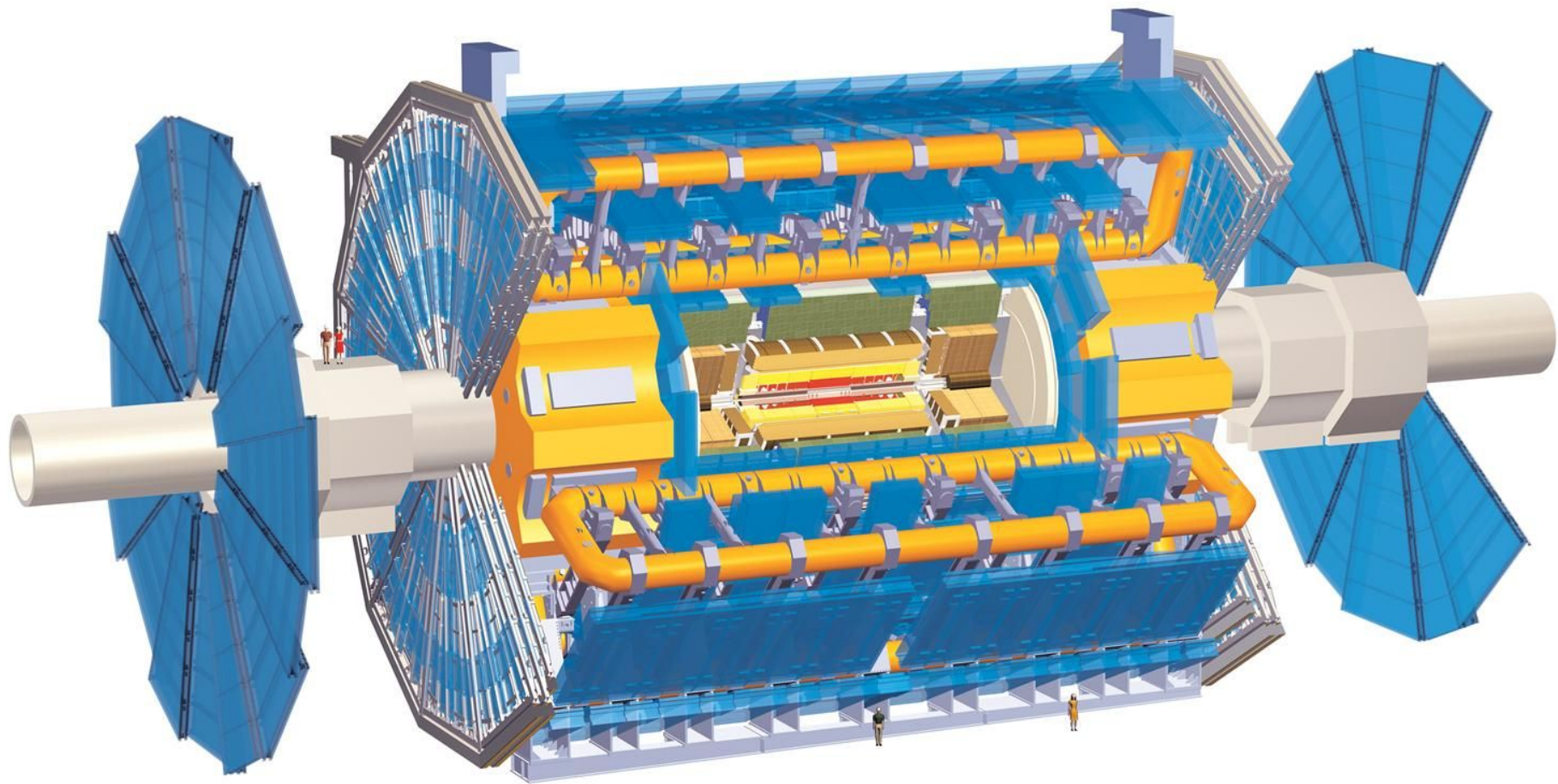
Laboratory for High Energy Physics, University of Bern, Bern, Switzerland

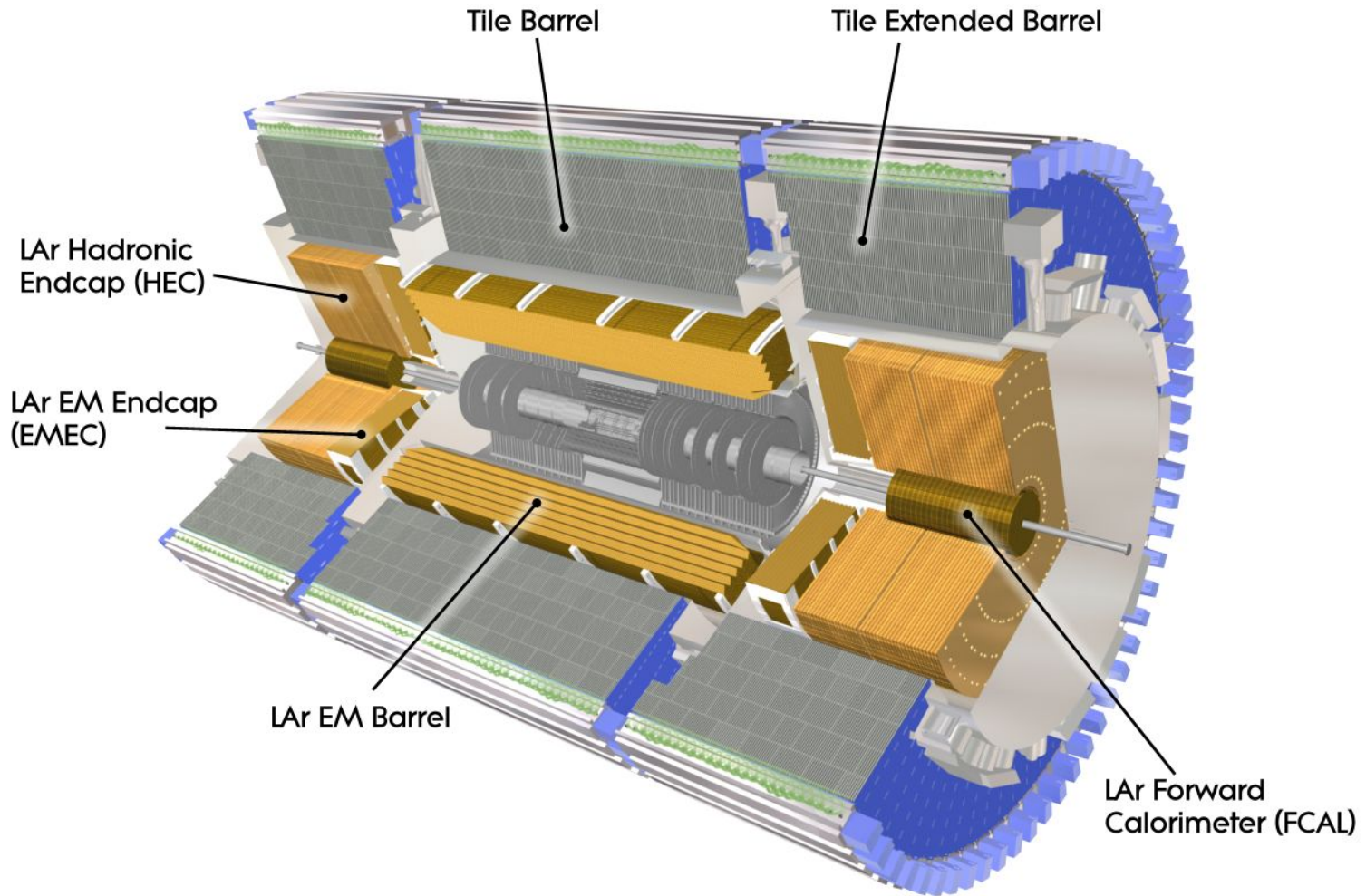
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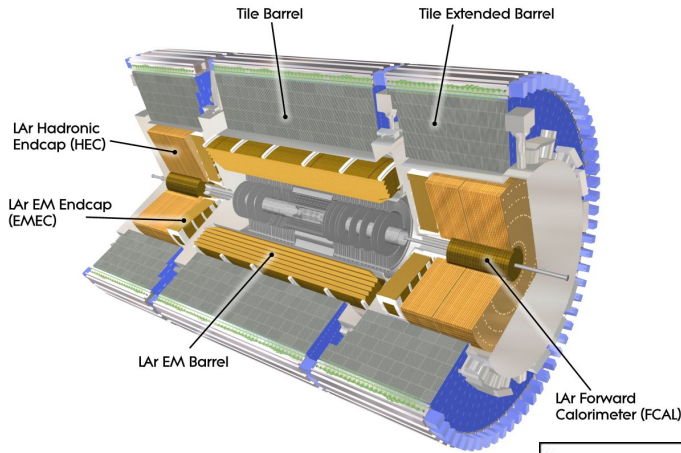




The panel met on seven occasions occupying 10 days during March to July 1993.

1.1 The Panel Membership

The panel consists of five independent members - T Akesson, J D Dowell (Chairman), N N Ellis, P R Norton and R Voss; six experts - D Fournier, B Mansoulie (Accordion); H Oberlack, P Schacht (TGT); M Nessi, F Vazeille (Scintillator Tiles); and the two spokesmen F Dydak, P Jenni (ex-officio).



7 Recommendations

The following recommendations are made by the independent members of the panel:

- i) The ATLAS calorimeter should have an extended hadronic barrel calorimeter with liquid argon end plugs.
- ii) The hadronic barrel calorimeter should be based on scintillating tiles only, including the extended barrel, subject to confirmation of the required performance in beam tests and Monte Carlo simulations.
- iii) The baseline option for the electromagnetic end plugs should be the 'Spanish Fan' version of the accordion calorimeter, subject to the satisfactory demonstration of a prototype and the achievement of a constant term in the energy resolution of 0.5%.



// Collaboration Board

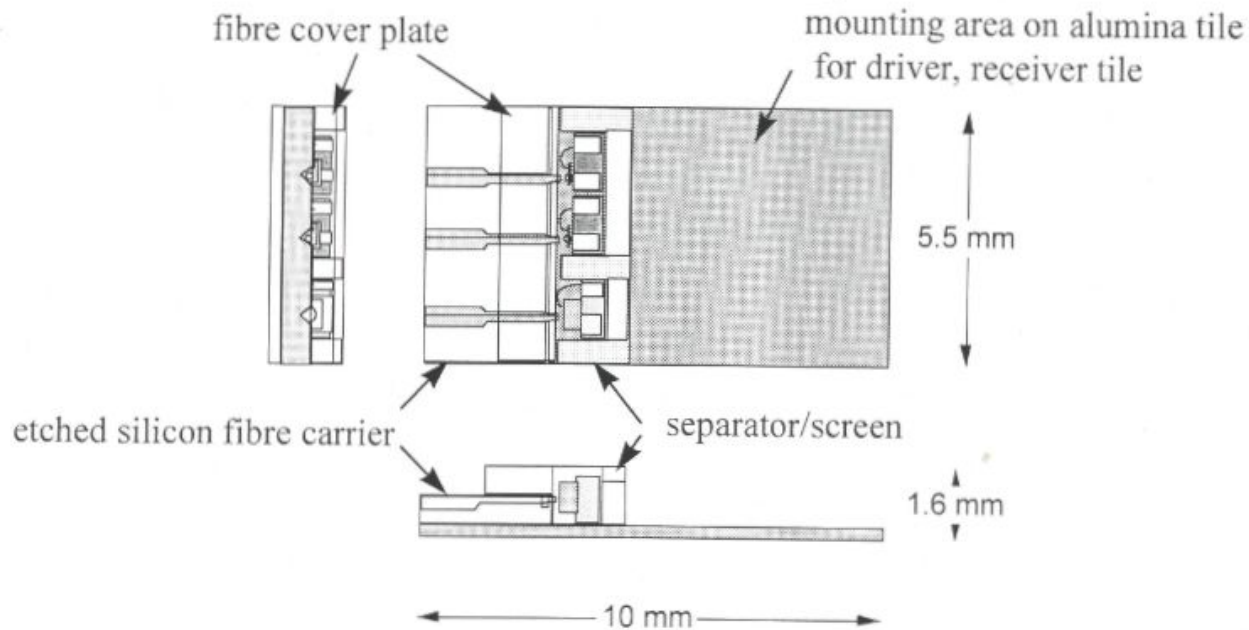
Collaboration Board Chair

Category Collaboration Board
 Mandate -
 Comments 4 years term, Deputy in first and last year, Chair in second and third year

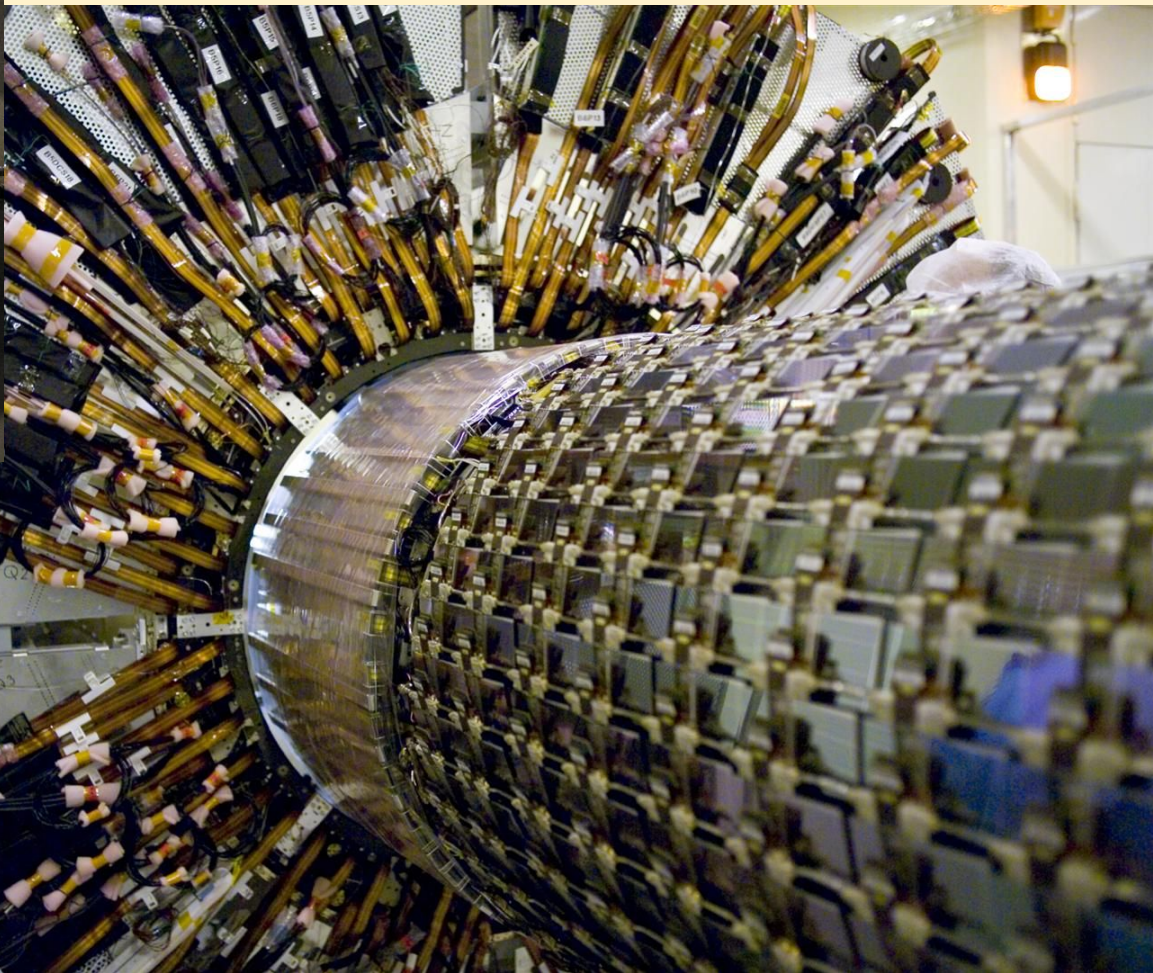
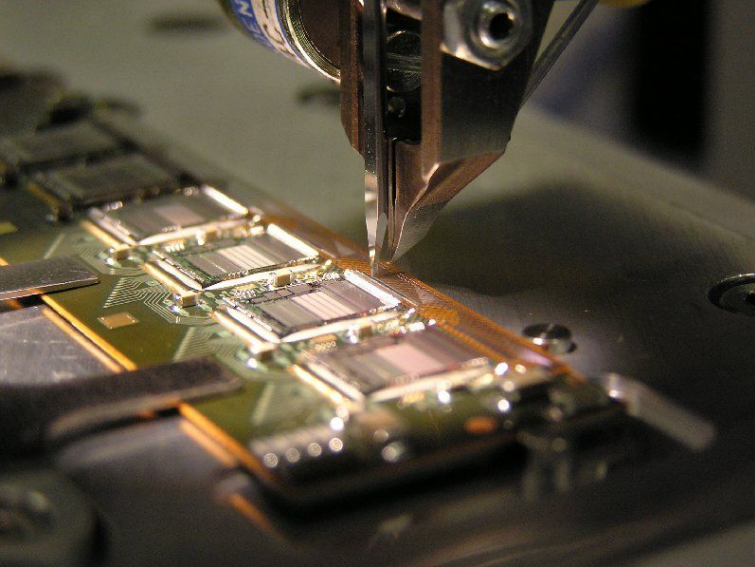
Kenway

	Glasgow	Physicist	2002-01-01	2003-12-31
	Chicago	Physicist	2000-01-01	2001-12-31
	Barcelona	Physicist	1998-01-01	1999-12-31
	Birmingham	Physicist	1996-01-01	1997-12-31
	Bern	Physicist	1994-01-01	1995-12-31

compact LED/PIN link termination unit for fibre-last assembly



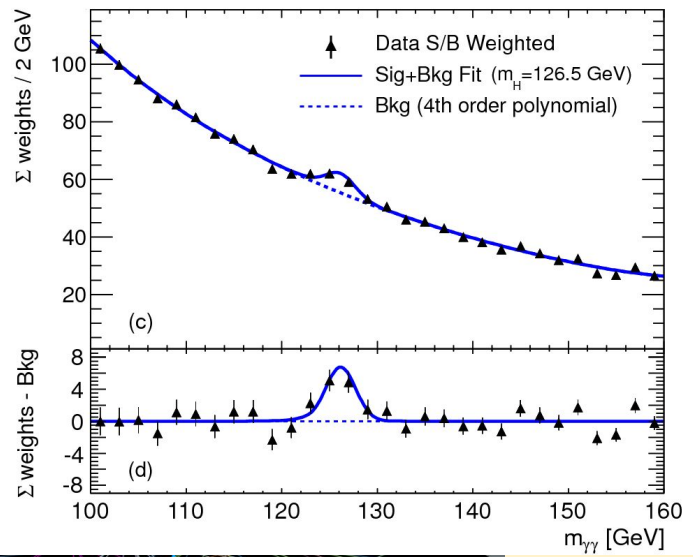
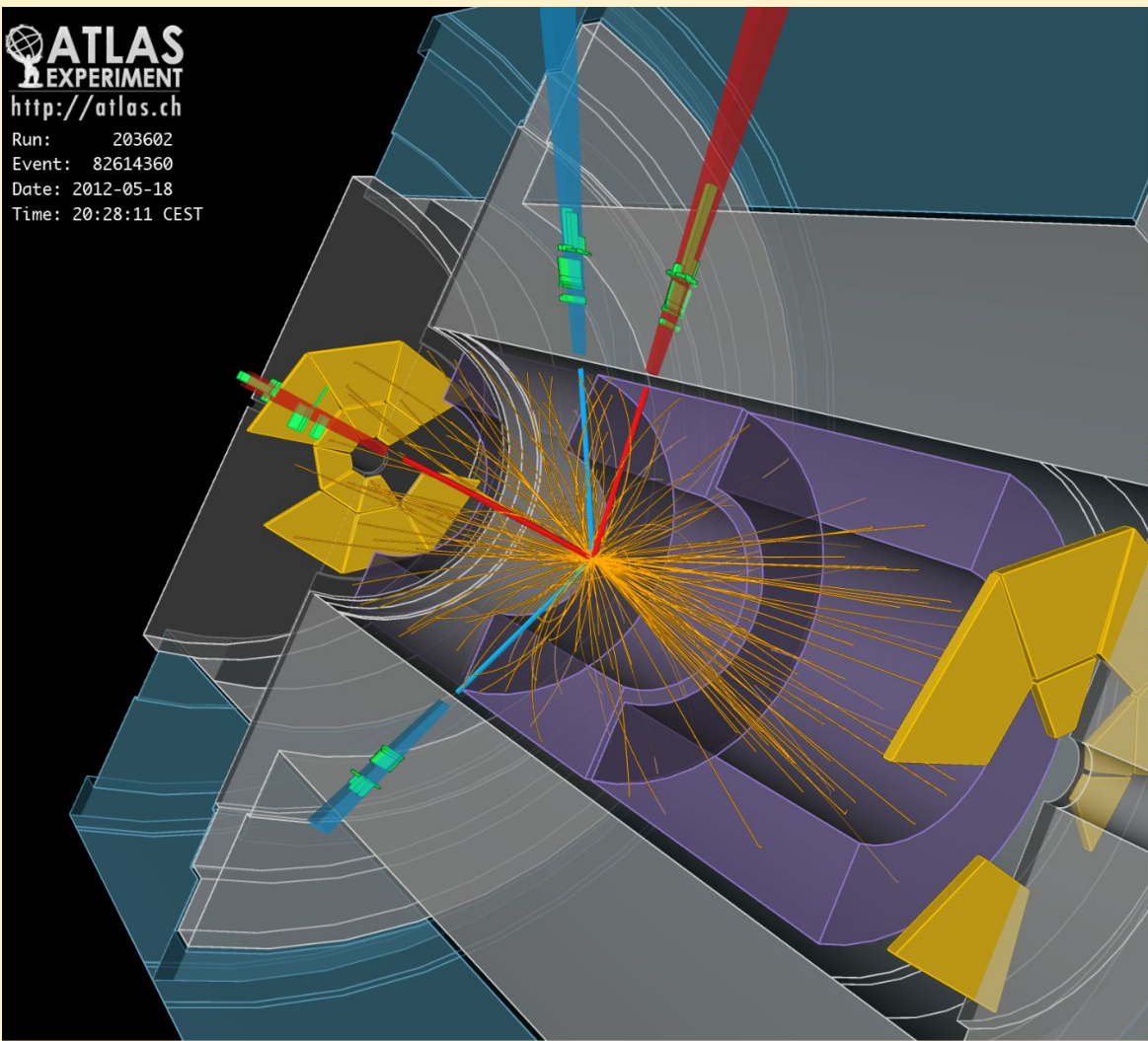
2 LED/block subassemblies plus 1 PIN/block subassembly





*Ninety-six to ninety-seven was my time
When we began detailed plans for sub-detector design.
Groups from England, France and Italy took up the toroid job
And the magnet-building work was overseen by the MOB
Many groups were joining up and some others departed
Collaboration plans for Russia and the US got started
The pixels and the SCT were under much debate
And we made elections fair to each candidate*





4th July 2012

Discovery of a new boson by ATLAS and CMS - the Higgs boson



Contents lists available at SciVerse ScienceDirect

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Observation of a new particle in the search for the Standard Model Higgs boson with the ATLAS detector at the LHC [☆]

ATLAS Collaboration ^{*}

This paper is dedicated to the memory of our ATLAS colleagues who did not live to see the full impact and significance of their contributions to the experiment.

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ATLAS Collaboration

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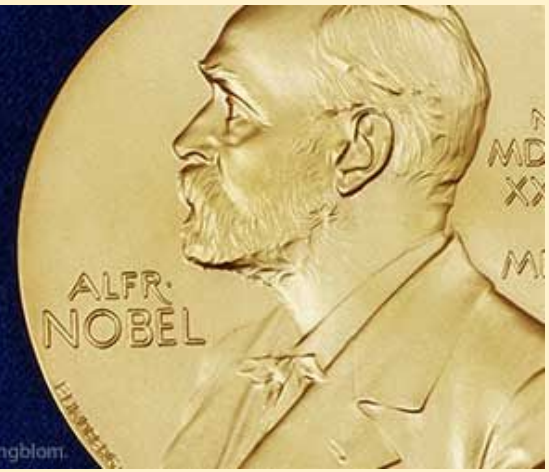
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2013 NOBEL PRIZE IN PHYSICS

François Englert Peter W. Higgs



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8 October 2013

The Royal Swedish Academy of Sciences has decided to award the Nobel Prize in Physics for 2013 to François Englert and Peter Higgs

“for the theoretical discovery of a mechanism that contributes to our understanding of the origin of mass of subatomic particles, and which recently was confirmed through the discovery of the predicted fundamental particle, by the ATLAS and CMS experiments at CERN’s Large Hadron Collider”

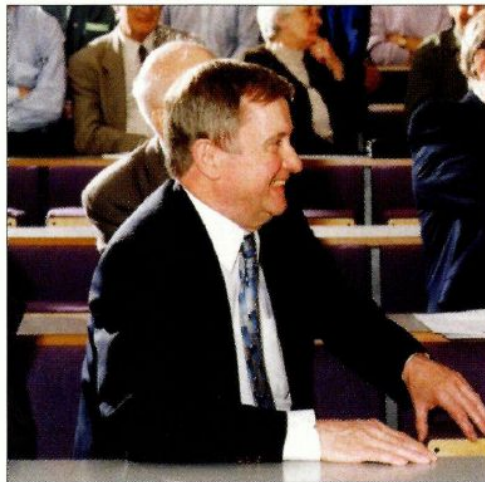
Happy 90th Birthday, John!

Experimental particle physicist Dowell retires

About 80 people attended a half-day meeting at the University of Birmingham, UK, on 3 July to mark the retirement of John Dowell.

Speakers were Malcolm Derrick from the Argonne National Laboratory, Chris Damerell from the Rutherford Appleton Laboratory, John Garvey from Birmingham, Carlo Rubbia from CERN, Peter Kalmus from Queen Mary University of London, and Nick Ellis from CERN. Their talks charted most of Dowell's career in experimental particle physics. In 1955, Dowell was a research student on the Birmingham 1 GeV proton synchrotron. He went on to work at NIMROD – the 7 GeV accelerator at the Rutherford Laboratory – before moving to the OMEGA spectrometer and then the UA1 experiment at CERN. At present he is a member of the H1 collaboration at DESY in Hamburg, and the ATLAS experiment at CERN.

Our understanding of particle physics has increased enormously during Dowell's career,



John Dowell retired in July.

going from a study of proton–proton elastic scattering at 1 GeV, through hadron spectroscopy, to a deep understanding of interactions at the quark level. One outstanding highlight was the discovery of the W and Z

bosons produced in proton–antiproton collisions at 540 GeV and observed by the UA1 experiment. For his contribution to this discovery Dowell was elected a fellow of the Royal Society in 1986.

Dowell has also made a significant contribution to determining the direction of particle physics research in the UK and in CERN. He was chairman of the UK Particle Physics Committee from 1981 to 1985, a period which overlapped with the Kendrew Committee set up to evaluate the quality and level of UK involvement in particle physics. He was co-spokesperson for the UA1 experiment from 1985 to 1988, chairman of the LEP Committee from 1993 to 1996 and chairman of the ATLAS Collaboration Board from 1996 to 1997. As an *ex officio* member of CERN's Scientific Policy Committee from 1993 to 1996 he was at the heart of European debate on the direction of particle-physics research.