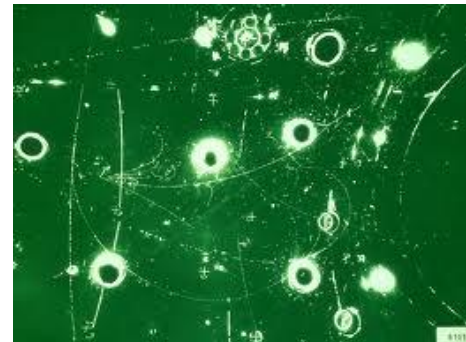
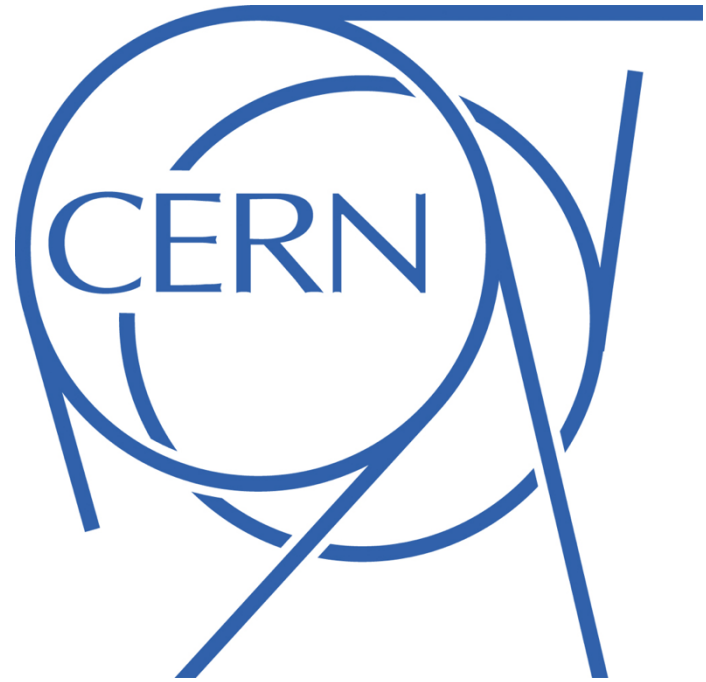


Velkommen til CERN

- European Organization for Nuclear Research
- Kjernefysikk
- Teorien om alt ...
- [“The God particle”](#)

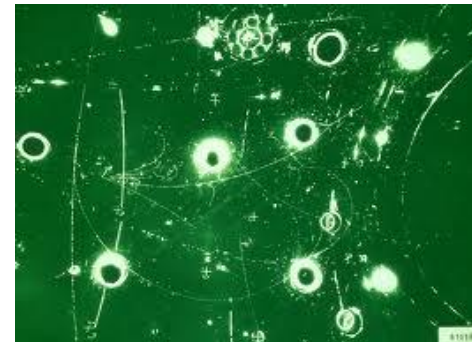


Velkommen til CERN

C

Centre ...

Stor diskusjon i København
i juni 1952 ...



Velkommen til CERN

C

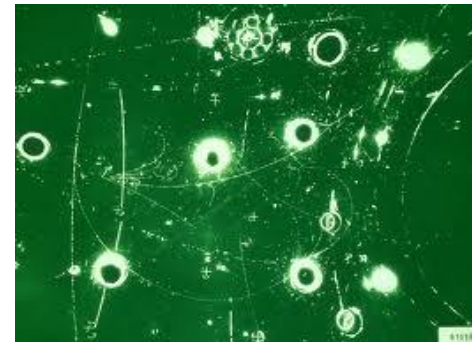
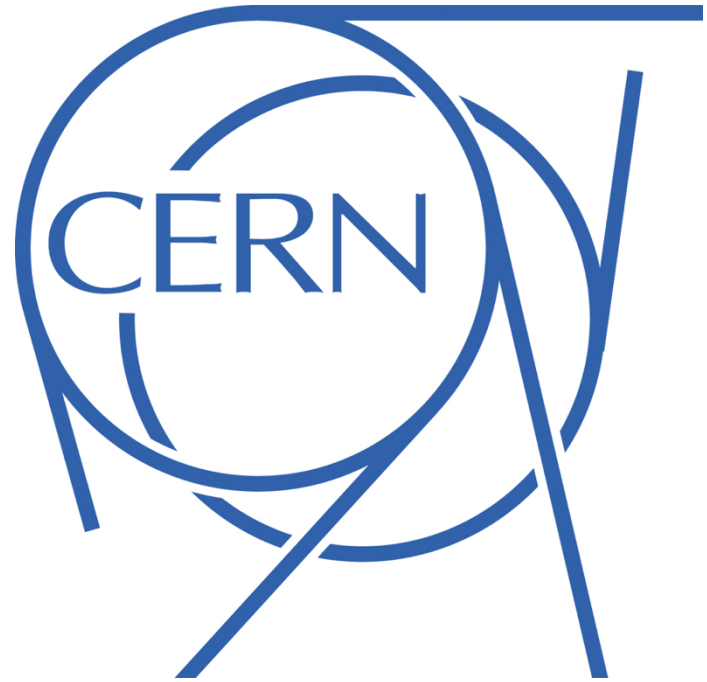
Centre ...

Cabale

Casino

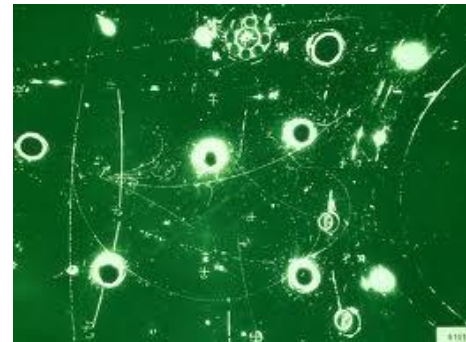
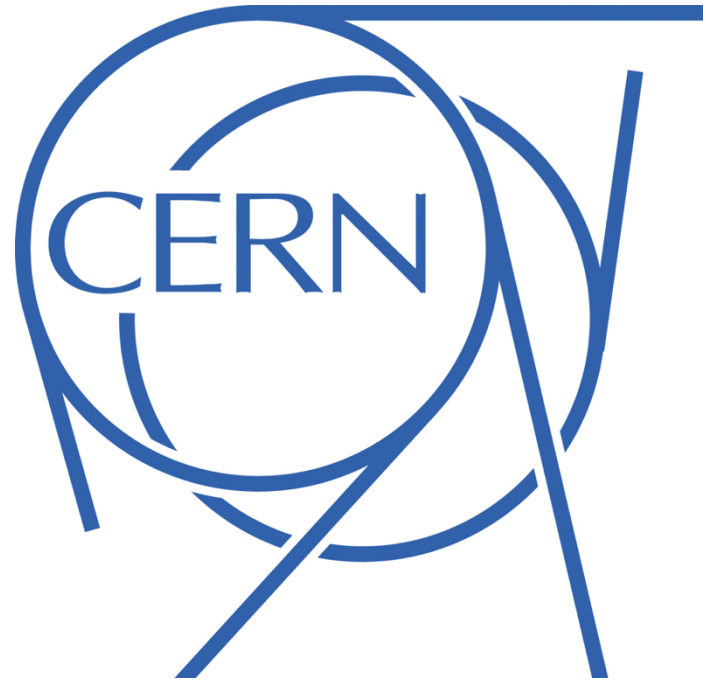
Concubinage

Cirque



Velkommen til CERN

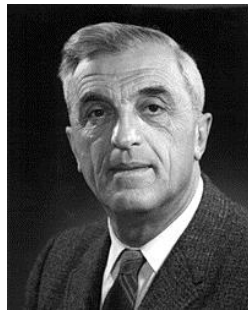
- European Organization for Nuclear Research
- Kjernefysikk
- Teorien om alt ...
- [“The God particle”](#)



CERN Director-Generals



Edoardo Amaldi
1952-1954



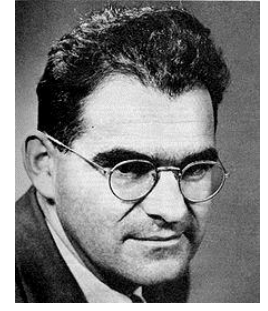
Felix Bloch
1954-1955



Cornelis Bakker
1955-1960



John Adams
1960-1961, 1971-1980



Victor Weisskopf
1961-1965



Bernard Gregory
1966-1970



Willibald Jentschke
1971-1975



Léon van Hove
1976-1980



Herwig Schopper
1981-1988



Carlo Rubbia
1989-1993



Christopher Llewellyn Smith
1994-1998



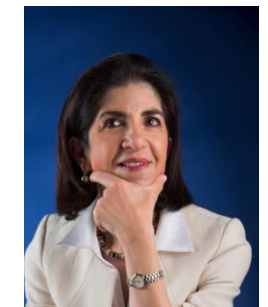
Luciano Maiani
1999-2003



Robert Aymar
2004-2008

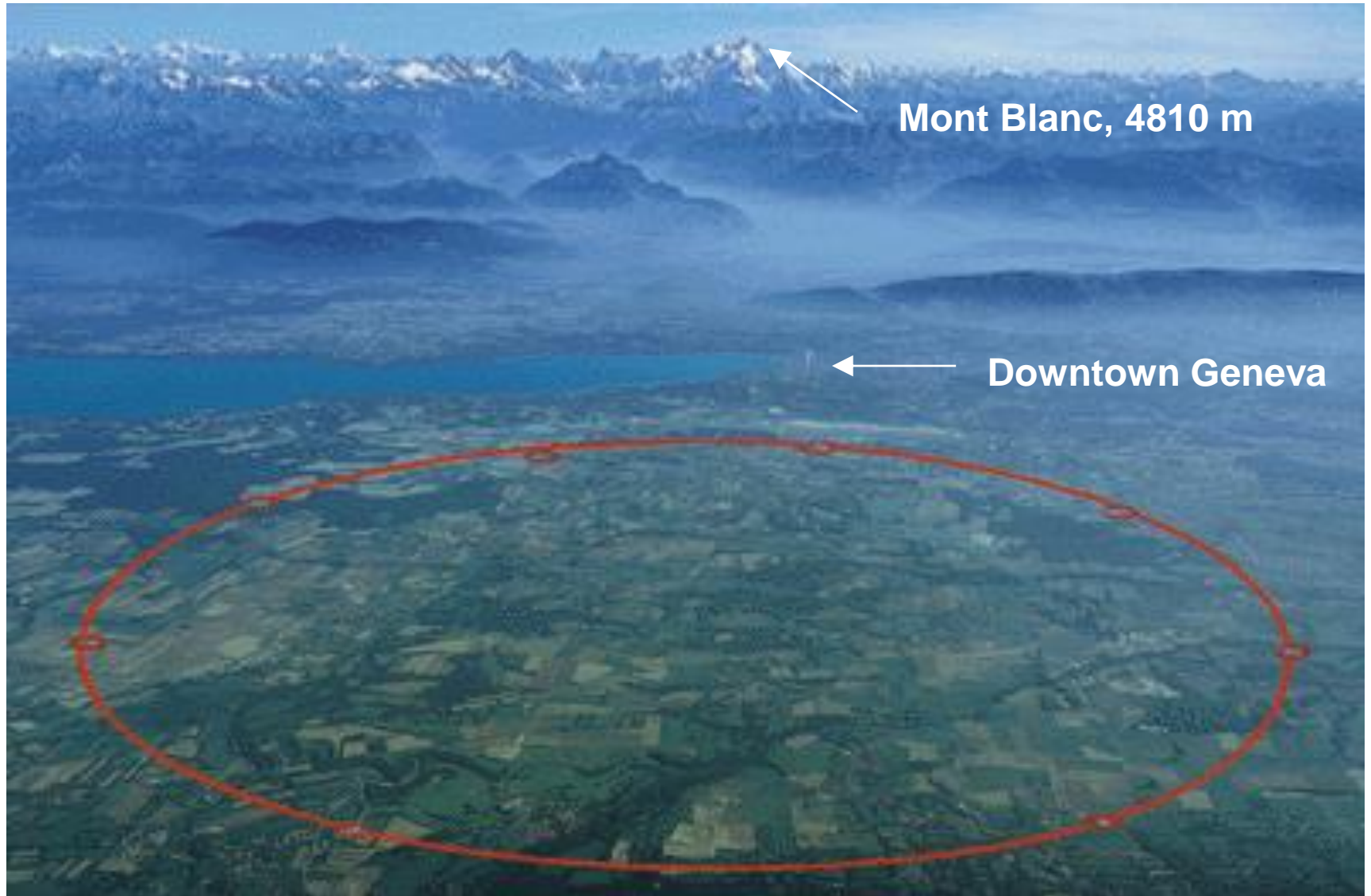


Rolf Heuer
2009-2015



Fabiola Gianotti
2016-2020

CERN Site



What is CERN?

- CERN is the world's largest particle physics centre
- Particle physics is about:
 - elementary particles which all matter in the Universe is made of
 - fundamental forces which hold matter together
- Particle physics requires:
 - special tools to create and study new particles

CERN is:

-- 2424 staff scientists (physicists, engineers, ...)

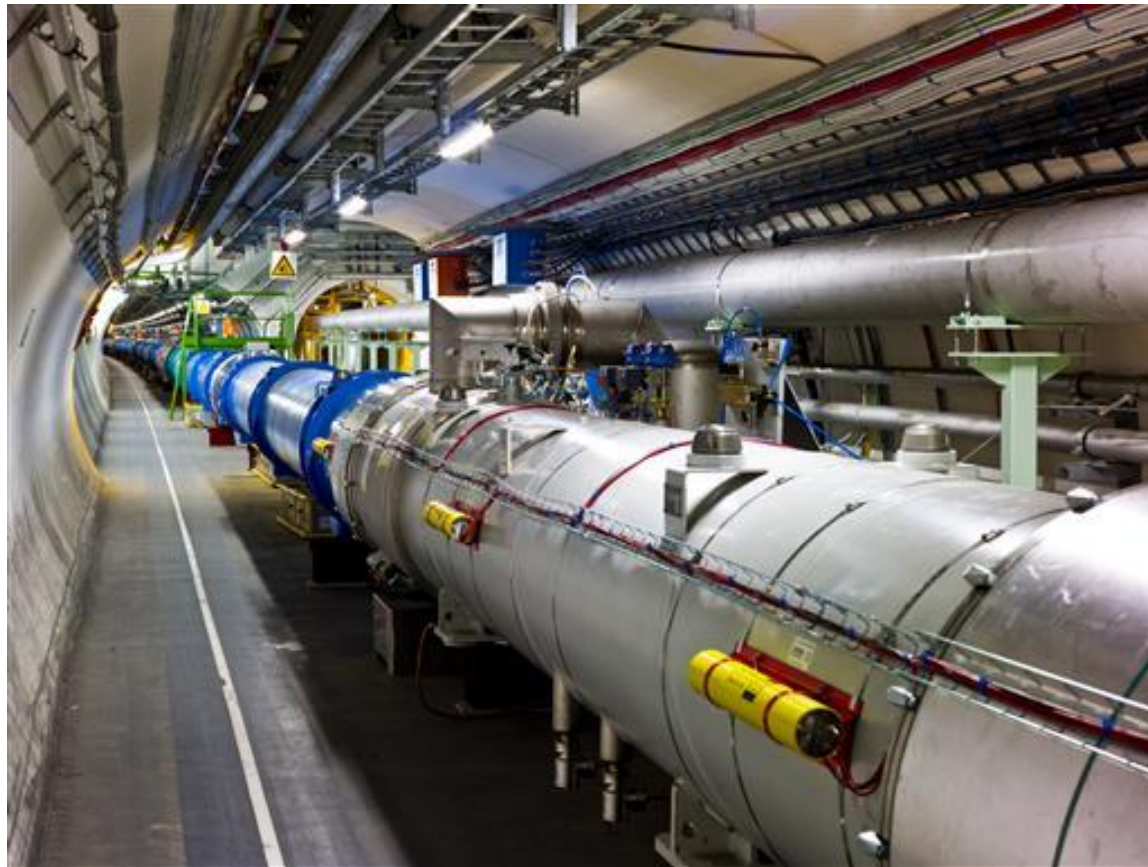
-2000 Sub-contractors

- Some 11500 visiting scientists (half of the world's particle physicists)

They come from 500 universities representing 80 nationalities.



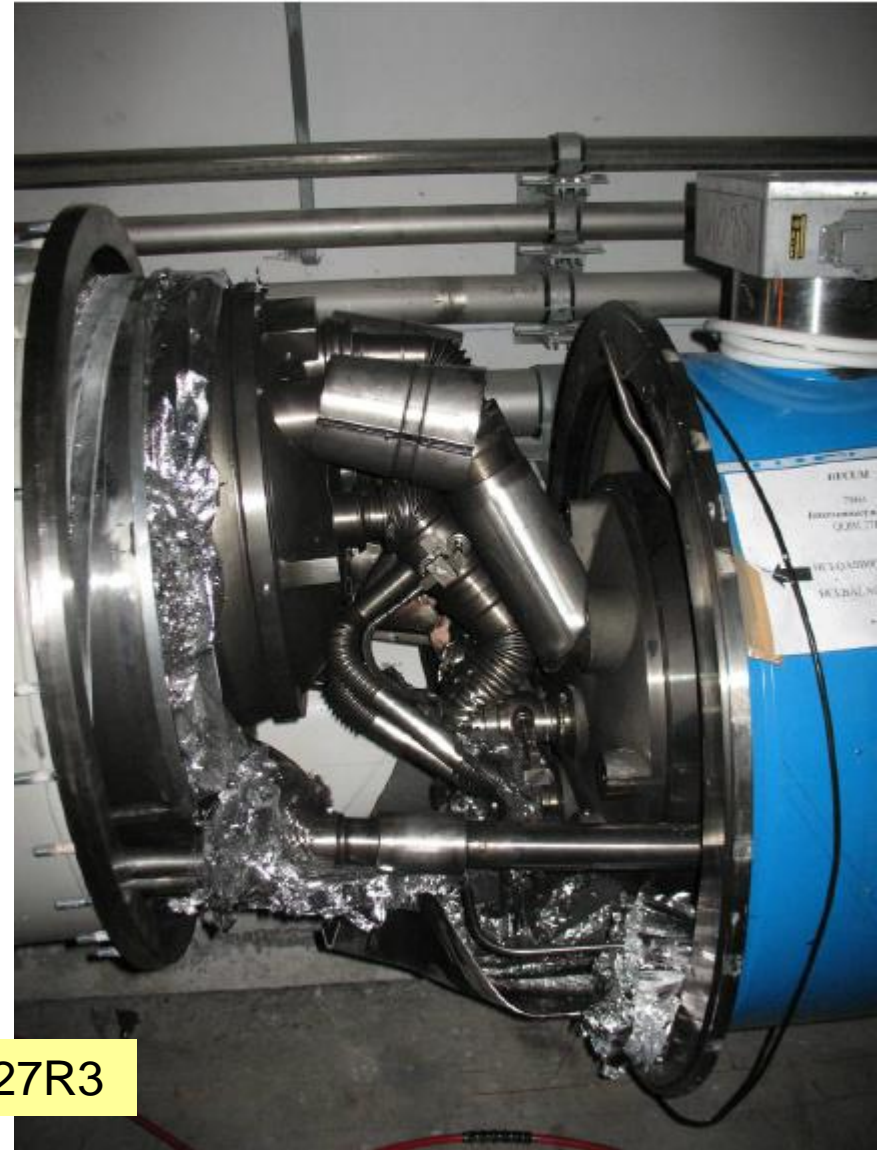
LHC akseleratoren, sep. 2008



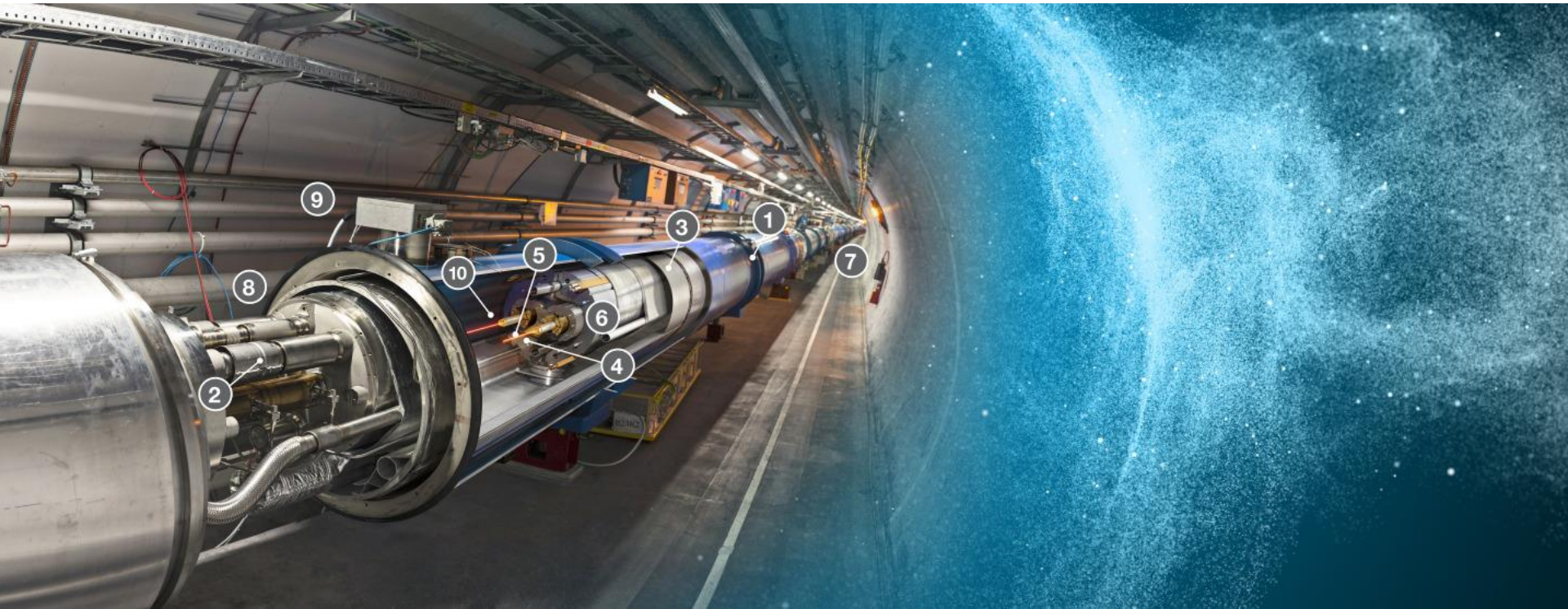
Et prosjekt diskutert og planlagt fra midt på 80-tallet

Og så ..., « the big bang »!

« Collateral damage: magnet displacements »



En palett med teknologier - nå klar for 13 TeV



- 1) Nye magneter
- 2) Sterkere koblinger
- 3) Sikrere magneter
- 4) Høyere stråleenergi
- 5) Bedre fokusert stråle
- 6) Mindre og tettere proton pakker
- 7) Høyere spenning
- 8) Førsteklasses kuldeteknikk
- 9) Strålesikker elektronikk
- 10) Sikrere vakum

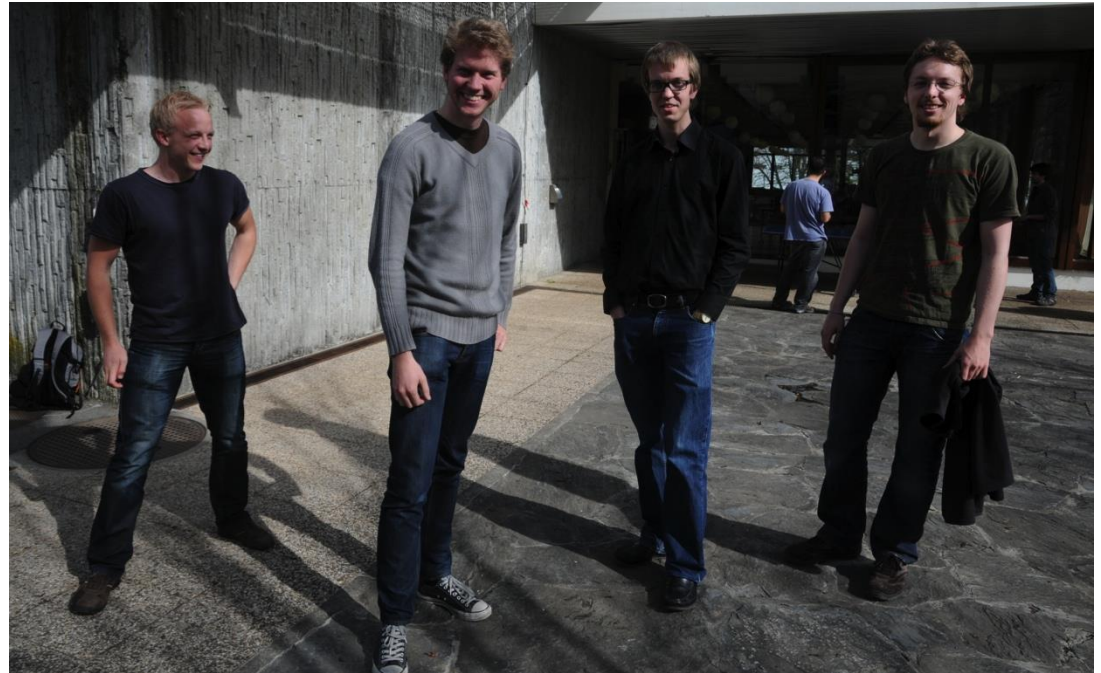
Historikk

- UNESCO konferanse i Lausanne 1949
- Pre-CERN 1952
- CERN 1954



Norge og CERN

- Medlem siden starten i 1954
- Bidrag 2015
2,8 % (31 MCHF)
- CERNs totale budsjett:
1,1 milliarder CHF

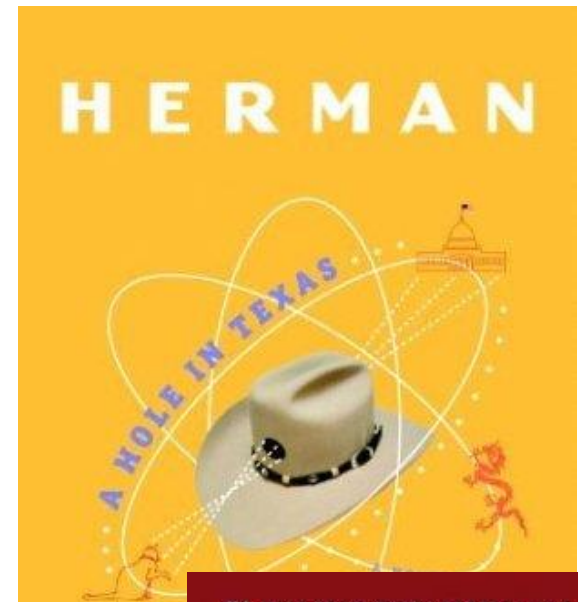


Norske tekniske studenter

Litteratur: krim

A Hole in Texas

Herman Wouk



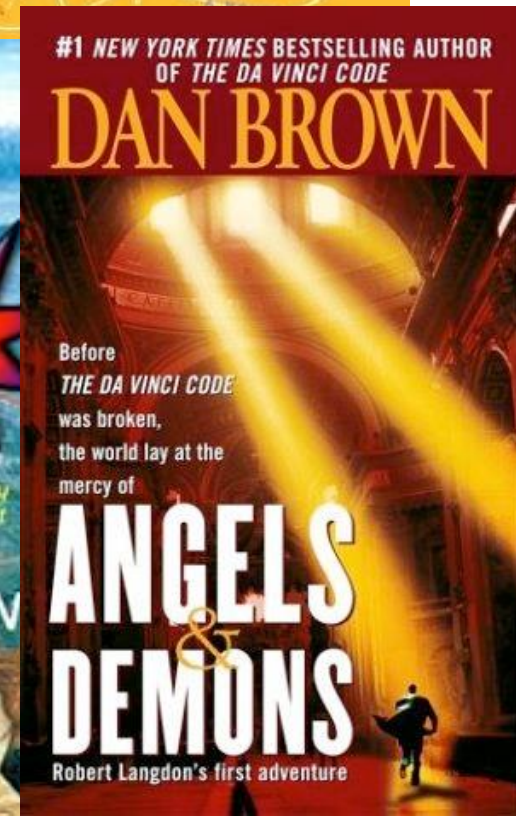
Engler og demoner

Dan Brown

eller hva med

Catalyzed fusion

Francis Farley



Film



“Typisk norsk å være god ...”

Gro Harlem Brundtland under de Olympiske leker i 1994

- Gjelder dette også partikkelfysikk?
 - [Sophus Lie](#) (1842-1899) – [matematisk grunnlag](#)
 - [Kristian Birkeland](#) (1867-1917) - Aurora borealis
 - [Odd Dahl](#) (1898-1994) “Trollmann og rundbrenner”
 - [Rolf Widerøe](#) (1902-1996) – “Ringenes herre”
 - [Kjell Johnsen](#) (1921-2008) – Ledet ISR prosjektet
 - [Bjørn Wiik](#) (1937-1999) – Direktør ved DESY
- Hva med dere? Hvem blir den neste på lista?

MINISTERE ROYAL
DES
AFFAIRES ETRANGERES

(Original: English)

Oslo, 22 July 1952

Professor E. Amaldi,
Secretary-General of the Council
of Nuclear Research
Istituto di Fisica
Rome

Sir,

With reference to your letter of 21st May, 1952, I have the honour of informing you that the Norwegian Government on 17th July decided to reply as follows to the Council:

Norway is interested in the plans for the establishment of a European Laboratory for Nuclear Research. As far as Norway is concerned it will, therefore, be considered to offer a suitable site for this purpose. However, the Government does not at the present time have sufficient information regarding these plans in order to make a final decision. It is therefore requested that such information be furnished. As the National Assembly is not in session, no offer to place a site at disposal can be made at present.

I have the honour to be,

Sir,

Your obedient Servant,

For the Minister
(signed)

Secretary-General

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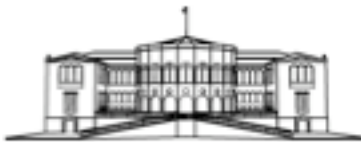
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Your obedient Servant,

For the Minister
(signed)
Secretary-General

Hadde ikke Stortinget vært på ferie,
så hadde kanskje CERN havnet i Norge ...



The Ashlad and His Good Helpers : illustrating the BEH Mechanism



By tomsalad



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00:05 / 15:13



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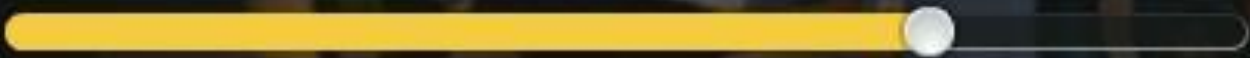


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Subtitles

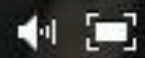
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11:19 / 15:13



“Get me water, within 3 minutes, from the end of the world!”



Subtitles



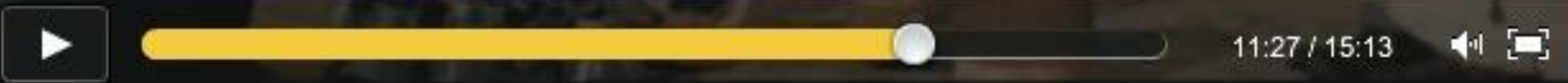
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Hold on – what is happening? The man removes his weights!



CC Subtitles Export Facebook Twitter

▶  11:36 / 15:13  

“Your Majesty, I will be straight back!”



Some 15 seconds after departure our friend is back!
This man is certainly not made by matter influenced by the
Brout-Englert-Higgs (BEH) mechanism.