

# Norwegian Outreach Activities

## .University of Oslo

### .Farid Ould-Saada:

- HEPP and ATLAS, Grid, Teaching “Particle physics” and “[Physics in present research](#)”

### .Katarina Pajchel

- PhD student, ATLAS

### .Bjørn Samset

- had an Outreach position at Department of physics, now post-doc in ATLAS with some outreach duties
- + Lars Bugge, Steinar Stapnes, ...

## .University of Bergen

- Anna Lipniacka, Egil Lillestøl

# Permanent and ongoing activities

Particle physics outreach in Norway, University of Oslo

- Annual Master Class in particle physics, for a selected group of high school students (approx. 100 participants)
- Presence, in some form, at most regular science fairs and major outreach shows. Ranges from focused presentations to smaller supporting exhibits. A working cloud chamber is the usual centerpiece.

- Translated version of the particle adventure, part of major Norwegian physics website
- Several chapters in acclaimed pop.sci. book published in WYP 2005.

**Partikkeleventyret**

Forrige Neste

- Fysikknett.no
- Hverdagsfysikk
- Lys og optikk
- Sansene
- Liv og bevissthet
- Medisinsk fysikk
- Partikkeleventyret
- Hva er fundamentalt?
- Byggsteinene
- Hva holder verden sammen?
- Henfall og annihilasjon
- Hvordan vet vi dette?
- Deteksjon
- Eksperimentere med partikler
- Tolking av data
- Test deg selv
- Kvantefysikk
- Nanoteknologi
- Superledning
- Big Bang
- SciFi-fysikk
- Spør Oss
- Eksterne linker
- Om fysikknett.no

Engelsk  
Fransk  
Gresk  
Italiensk  
Polsk  
Portugisisk  
Slovensk  
Spansk (Spania)  
Spansk (USA)  
Tysk

Dette er en norsk oversettelse av det prisvinnende engelskspråklige nettstedet **The Particle Adventure**.

Her kan du utforske de fundamentale partiklenes og kreftenes verden og lære om de eksperimentelle teknikkene som er brukt.

tilleggsinformasjon

- Oversikt, ordbok, partikkeloversikt
- Partikkelhistorie og oppsummering
- Partikkelfysikk nyheter
- Plakater, bøker pedagogisk stoff
- Interessante fysikksteder

# Plans and preparations for LHC

Particle physics  
outreach in Norway,  
University of Oslo

To prepare both the media and the public for the slew of exciting news that will hopefully come in 2007/2008, we are:

- establishing a presence at the regular Press Lunches of the Science faculty
- keeping up personal contacts with journalists in several national newspapers and magazines, who are following our progress
- using a two-pronged approach, pushing articles both on 'regular' particle physics and on grid computing and other technology development, which is then tied to CERN basic science
- again, making sure the LHC is mentioned at all regular science fairs, both local and national

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FOTO: JOHANSEN, GEIR OTTO

## Tidens største videokonferanse

15.045 personer fra 94 land deltok i den største og lengste videokonferansen noensinne.

### GEIR AMUNDSEN

Begivenheten fant sted under "Beyond Einstein"-konferansen, som ble arrangert av CERN for å markere avslutningen på Einstein-året. Seks av verdens største fysikklaboratorier og vitenskapsmuseer linket seg opp til CERN i tolv timer uten stopp via en Tandberg videokonferanse den 1. desember. Etter tolv timer, åtte minutter og 56 sekunder ble "Beyond Einstein" den største vitenskapskonferansen noensinne.

Tandberg var ansvarlige for videonetverket som gjorde alle seerne i stand til å følge med, og kan dermed skryte av å ha vært med på å muliggjøre tidens største videokonferanse. "Ved bruk av vår teknologi ble den største vitenskaplige videokonferansen noensinne mulig", sier Thomas Niclaus, direktør for TANDBERG i Sentral-Europa, i en pressemelding.

Tandberg vil satse på å få konferansen i Guinness Rekordbok. Hele konferansen kan du se [her](#).

# Special focus: Particles in schools

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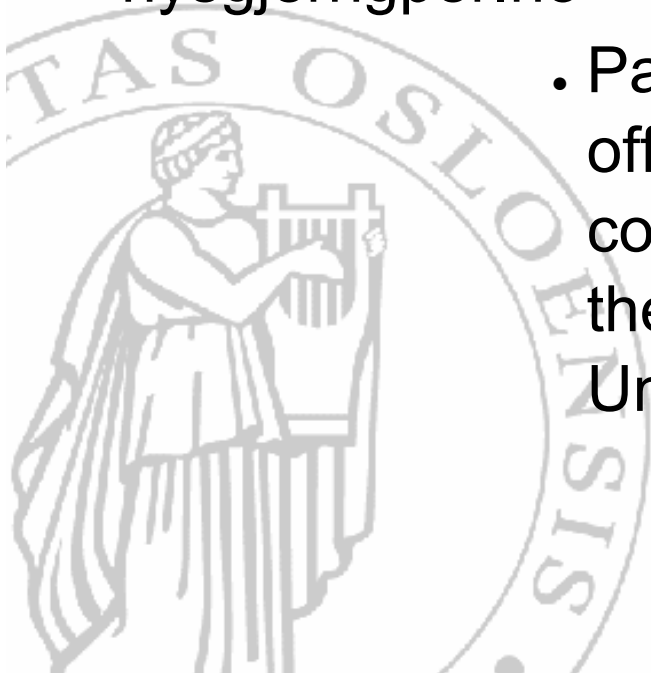
Norwegian schools have new science curricula this year, and particle physics is strongly represented. This means that many teachers need help in catching up, and we provide both internet resources and courses:

- Several relevant programs through science website [viten.no](http://viten.no)
- Articles on Norwegian Research Council websites such as [nysgjerrigper.no](http://nysgjerrigper.no)

- Participation in the official re-education courses given by the Dept. of Physics, University of Oslo



The screenshot shows a web browser window with the URL [viten.no](http://viten.no). The page title is "Alfa-stråling (α)". The left sidebar contains a navigation menu under "Radioaktivitet" with the following items: "Innledning", "Opplæringskurs", "Hva vet du?", "Hva er radioaktivitet?", "Oppgave", "Atomkjernen", "Ulike begreper", "Formler", "Alfa-stråling" (highlighted), "Beta-stråling", and "Gamma-stråling". The main content area features a diagram of an alpha particle, which is a cluster of two protons and two neutrons, represented by four colored spheres (two red, two blue). Below the diagram, there is text in Norwegian explaining that a radioactive isotope consists of an unstable nucleus that will eventually emit radiation to reach a more stable state. It also states that radiation from a radioactive nucleus can be compared to a cannon that can only fire one shot at a time, representing the process of "desintegration" or decay.



# Masterclass 2006 in Oslo (Katarina Pajchel)

- The Elementary Particle Physics group in Oslo participated in the international Masterclasses 2006.
- We organized one full day
- ~ 100 pupils and teachers from 3 schools participated.
  - Two introductory lectures were given by prof. Farid Ould-Saada
  - Students from high energy physics were tutors during the exercises
  - Master students gave guided tours to the cyclotron lab at the department
  - Practical organization – Katrina Pajchel
- A large group of the pupils used the day as a preparation for a trip to CERN
- The general feedback was very positive, all though not everything worked perfectly.

# Mater Classes 2006

## **Particle Physics: the Science of Matter, Energy, Space and Time**

*Farid Ould-Saada*

*UiO, 21 March*

### **Further Details**

[The Big Bang Machine](#)

[Aktuell forskning i fysikk](#)

[Partikkelfysikk](#)

[High Energy Particle Physics](#)

[Project](#)

[Nordugrid](#)

# Activities in Bergen (Anna Lipniacka)

- Particle Physics Master Class- Hands on CERN for high school students.
- Lectures for high school teachers on Dark Matter and Dark energy and Particle Physics.
- We are constructing cosmic muon telescope to use for educational purposes and in contact with local schools ( local funding) and in collaboration with similar Scandinavian activities.