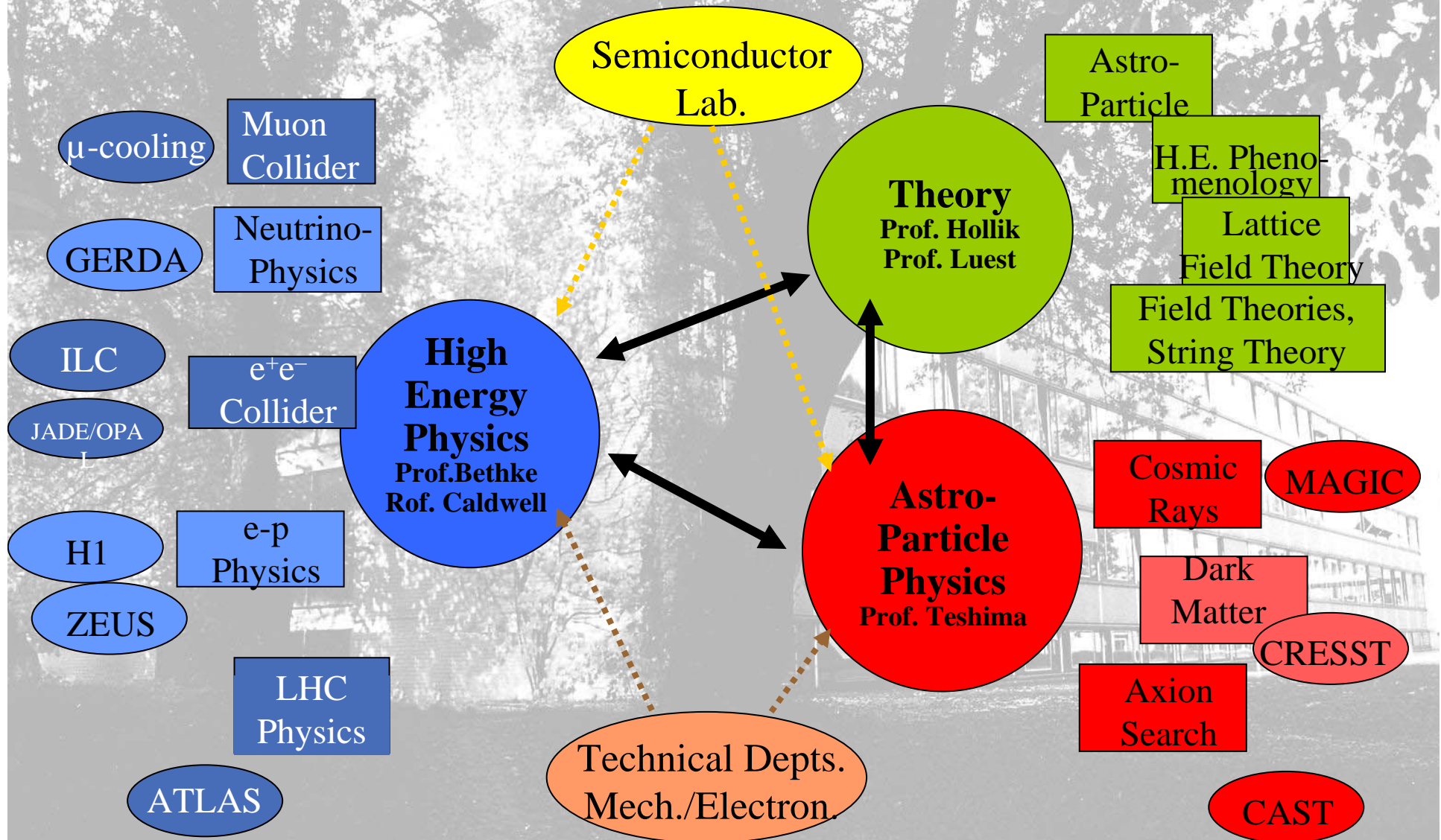




Max-Planck-Institut für Physik (Werner Heisenberg Institut)

Max-Planck-Institute of Physics

Research Areas



ATLAS
and
The Large Hadron Collider project

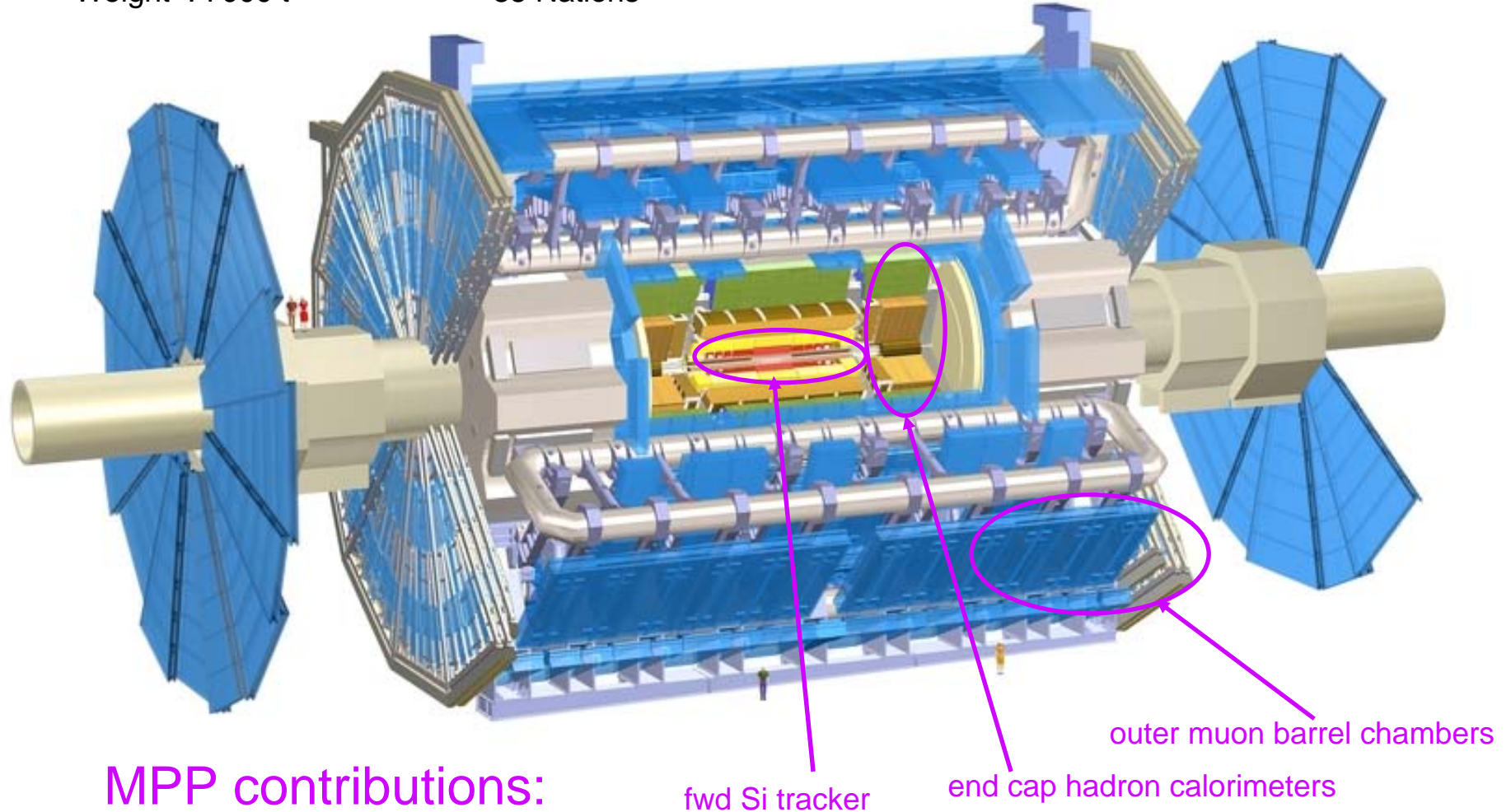


ATLAS at the Large Hadron Collider / CERN

Length: 44 m
Height: 22 m
Weight : 7000 t

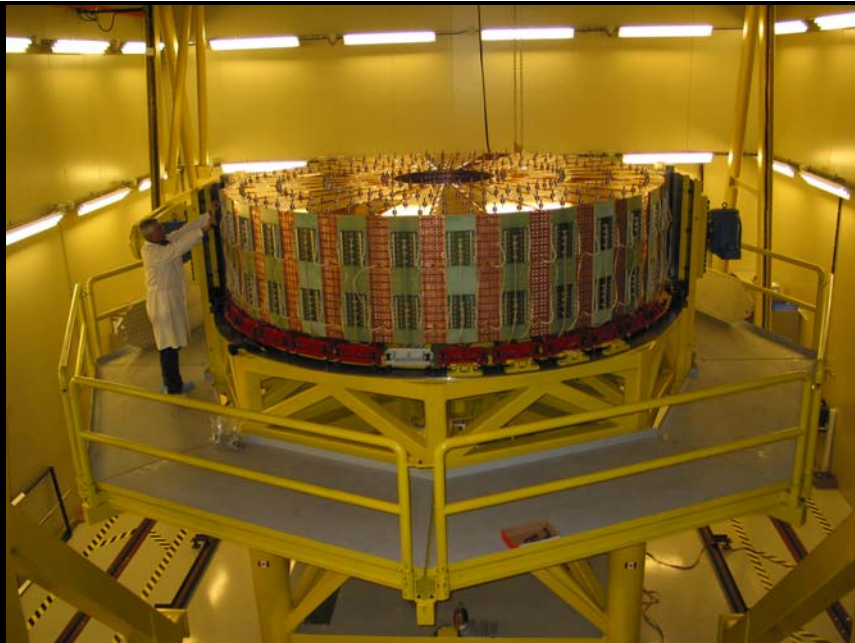
1800 Physicists & Engineers
150 Institutes
35 Nations

$150 \cdot 10^6$ elektron. Read out channels
40 MHz collision rate
 10^{14} B/s raw data flux

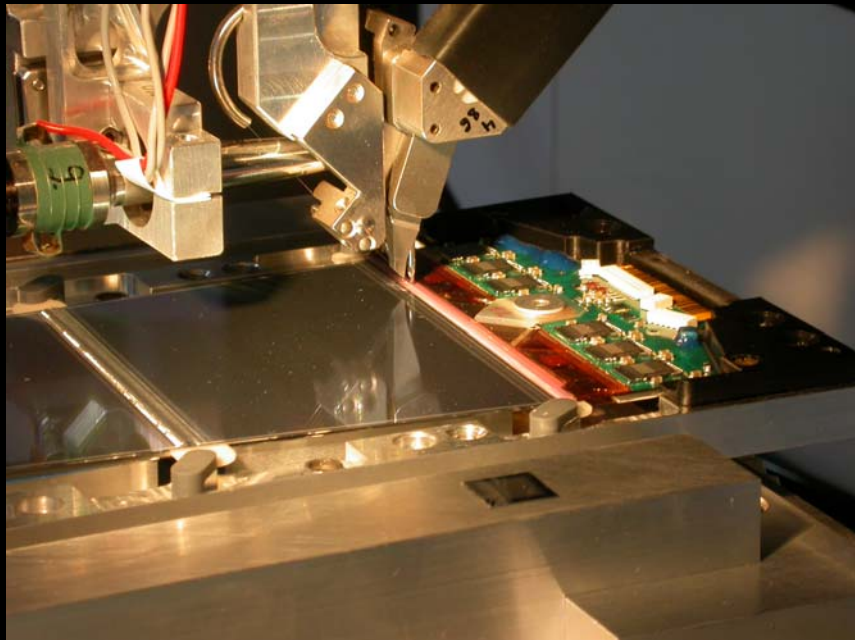


Construction until 2006, operation from 2007, for ~ 15-20 years

MPP contributions to ATLAS



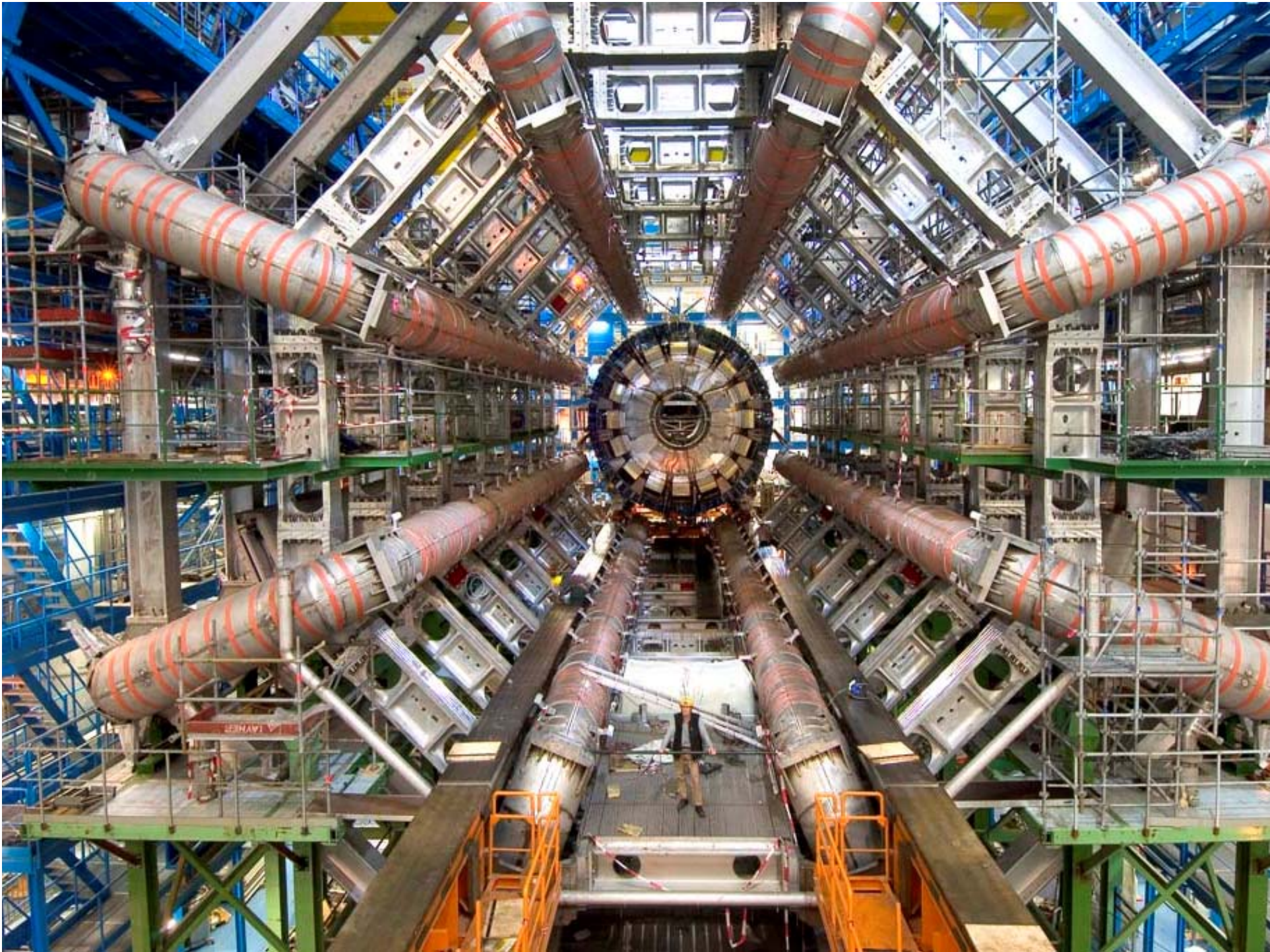
1 hadron end-cap calorimeter wheel, GaAs readout electronics



Si-strip detectors (forward wheels)

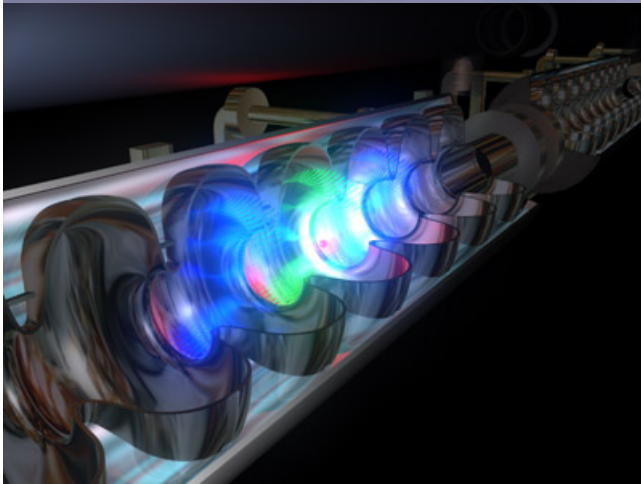


85 high resolution barrel μ - chambers

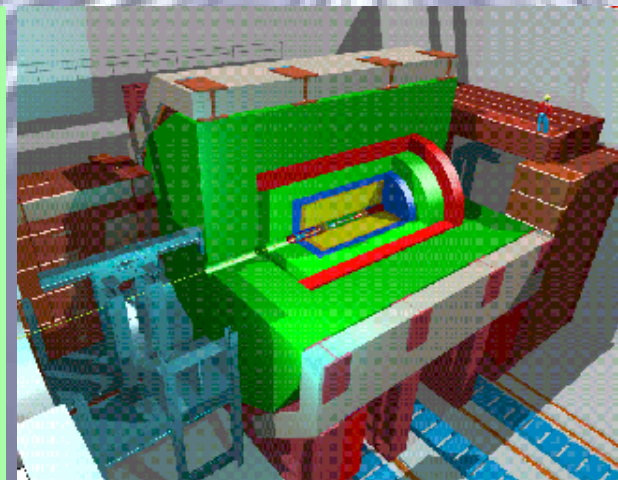
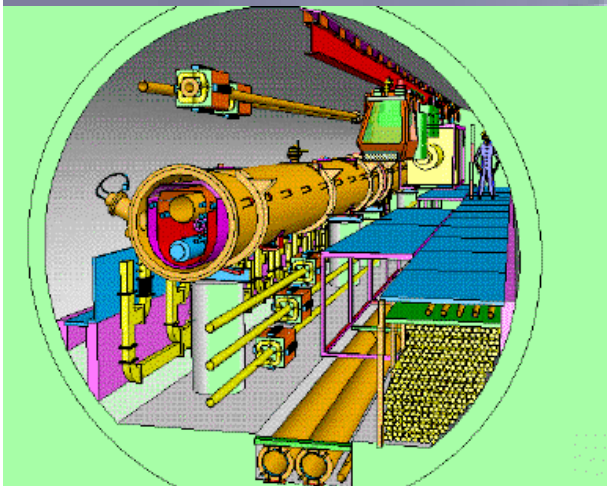


International Linear Collider

(formerly TESLA)

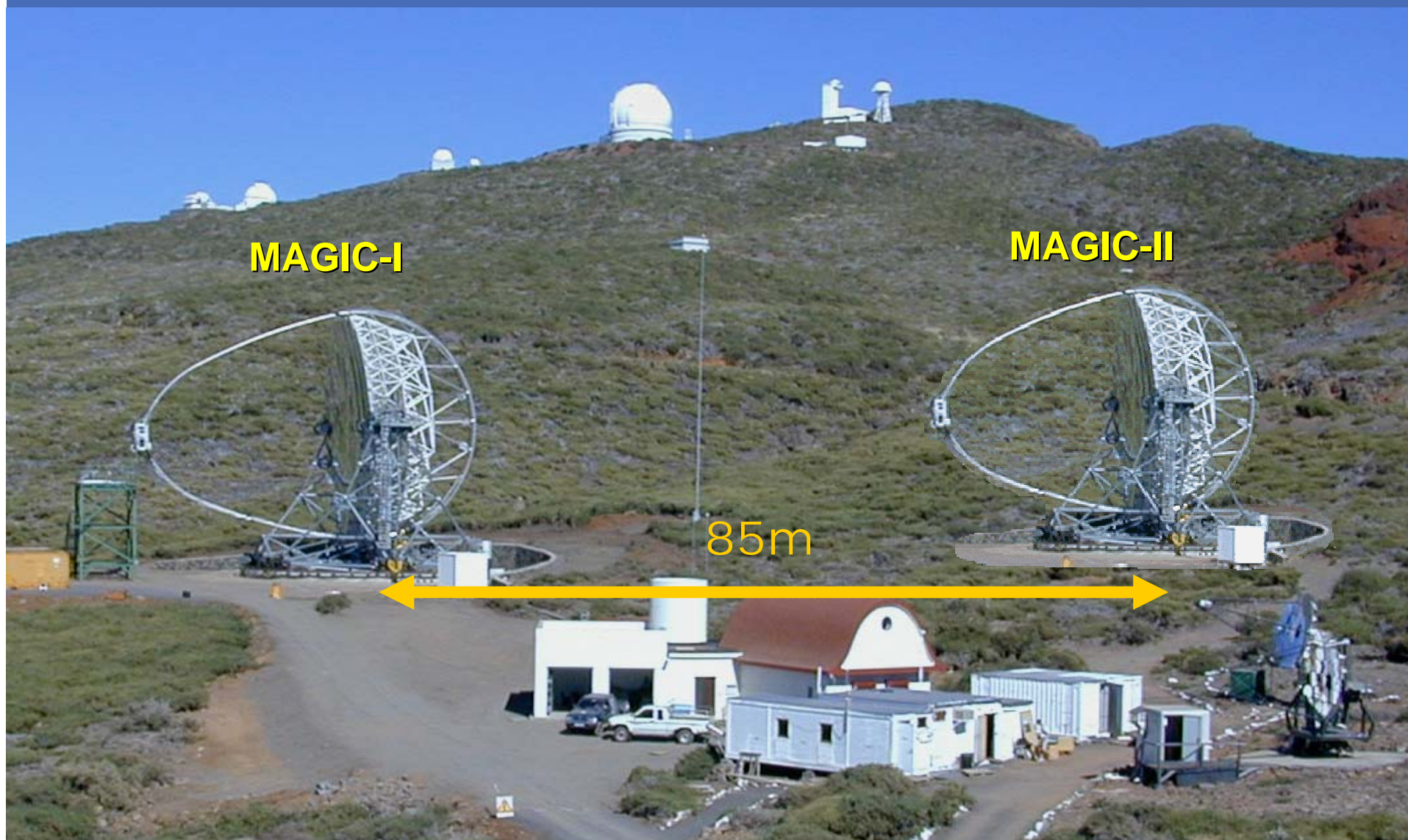


- MPP activities:
 - physics case studies
 - detector case studies
 - internat. organisation of workshops
 - R&D Si pixel detector (DEPFET)
 - EUDET JRA1 participation



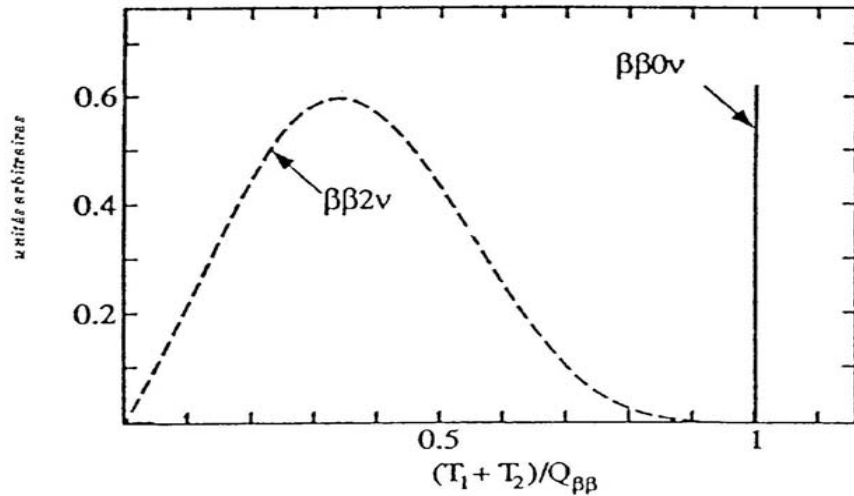
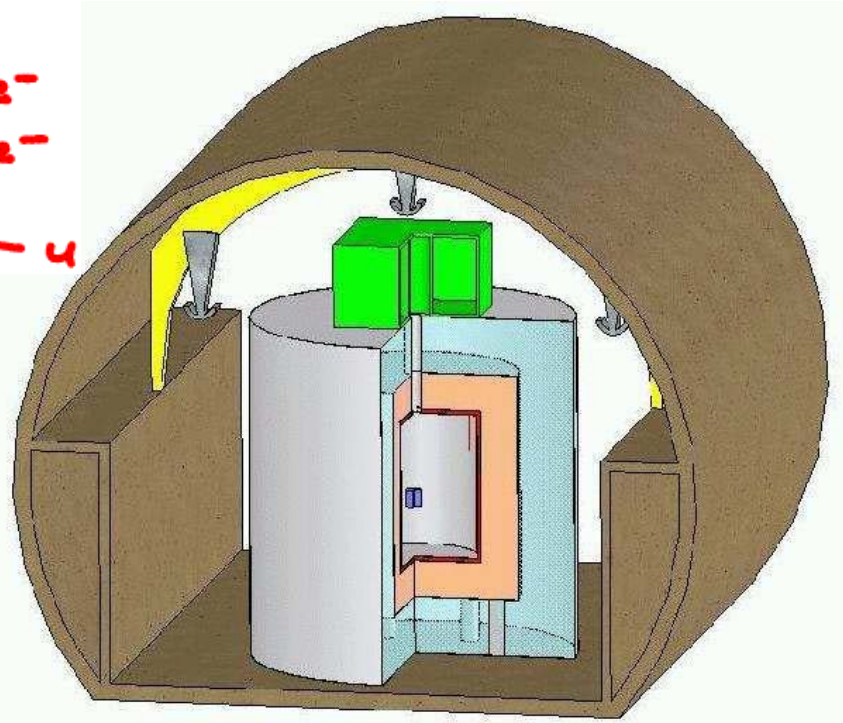
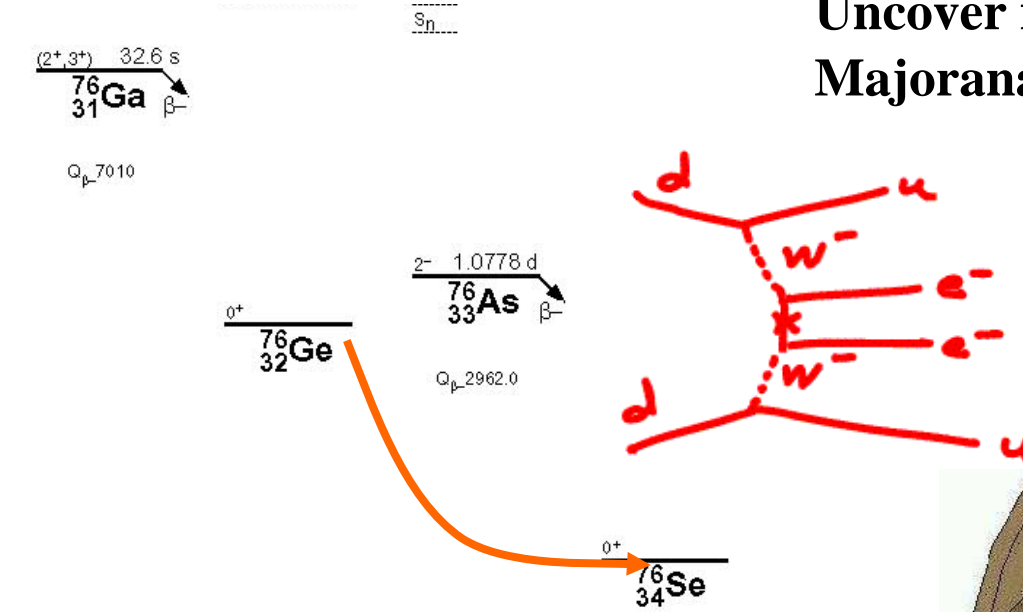


MAGIC-II (2 x 17m)



Double Beta Decay Initiative

Uncover fundamental nature of ν
 Majorana ($\nu = \text{anti } \nu$) or Dirac ($\nu \neq \text{anti } \nu$)



Zero ν - Majorana particle !

- **GERDA** at Gran Sasso - approved 02/2005
- **Demonstrate background reduction**
- **Major mechanical engineering effort**
- **R&D on segmented Germanium detectors**

Practical Information



Lunch

Today and tomorrow
“Iphitos” 13:00-14:00

- Penne Siciliana (Veg)
- Saltimboca all Romana (Meat)
- Filet of St. Piere (Fisch)
& Salad & Table Water



Conference Dinner: Ratskeller, Marienplatz

Today 20:00
U6 stop "Marienplatz"



Follow "Ratskeller"
Downstairs, room "Sumpf"

Visit of our Semiconductor lab

Friday, meet 14:00 here in the foyer (we will use the Metro to Neuperlach)

Visit will last till ~16:00

From Neuperlach ~ 1h to airport (U5/S8)

~ 30min to main station

