COMPASS polarized target

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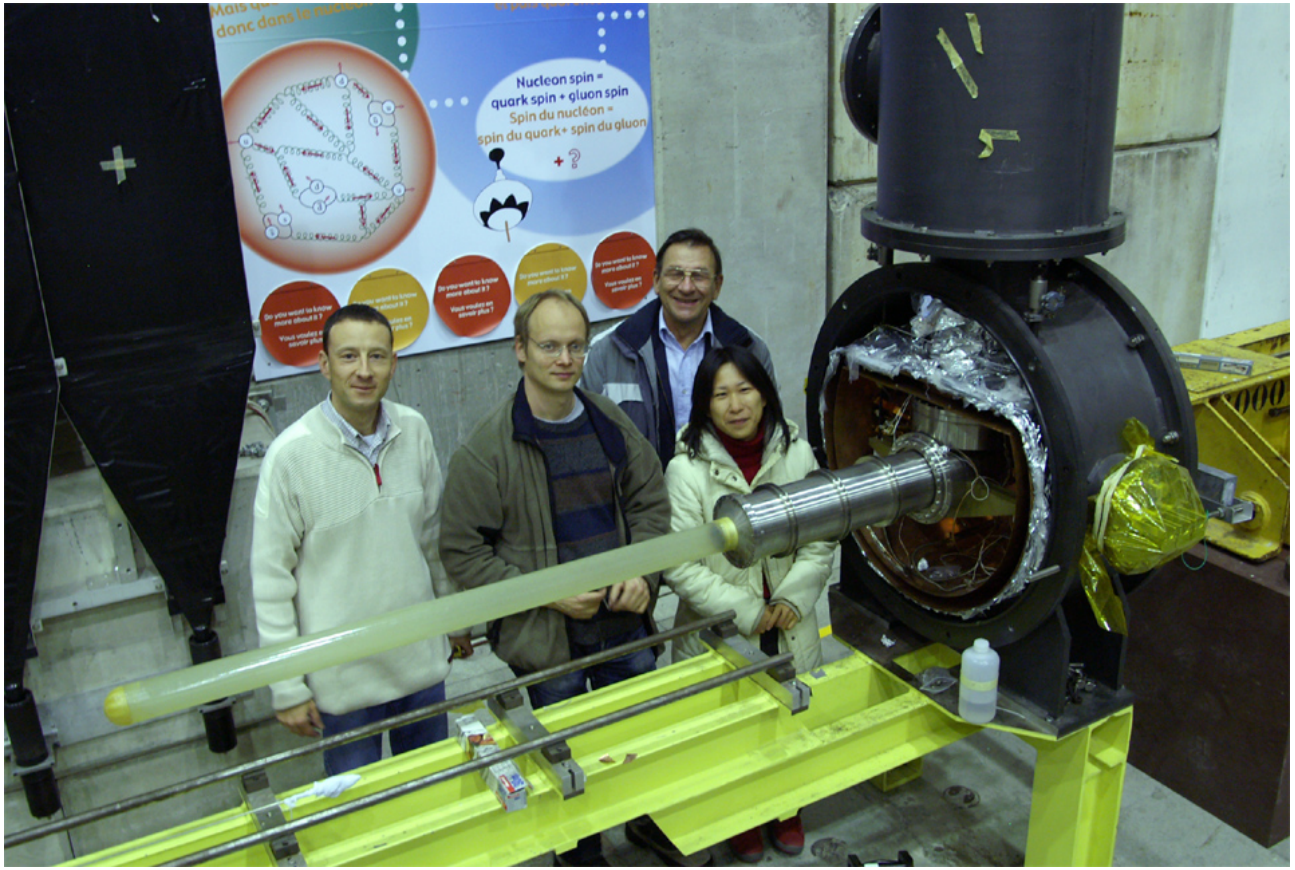
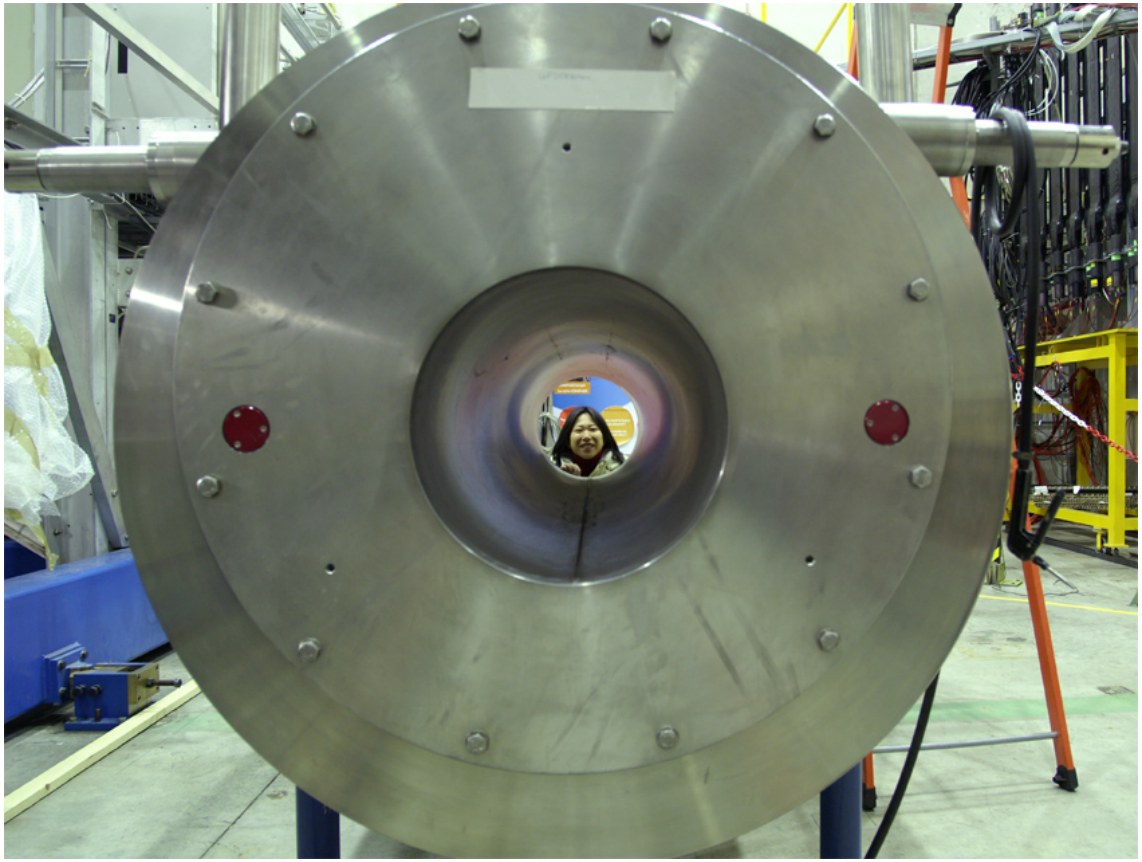
Abstract

Status and planning for 2006. See also CERN weekly bulletin http://bulletin.cern.ch/, Issue No.05-6/2006, Monday 30th January 2006.

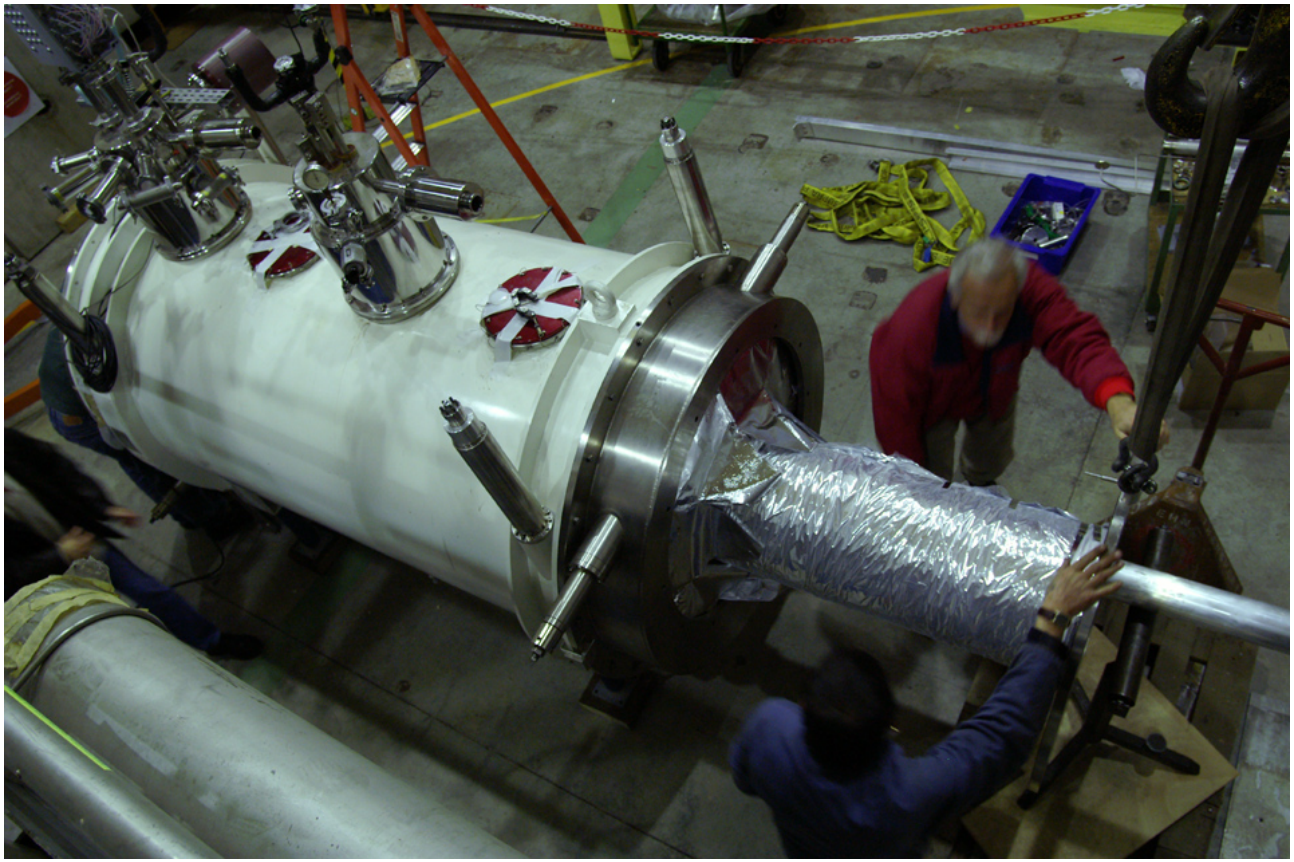
Dilution cryostat opening, Norihiro behind camera



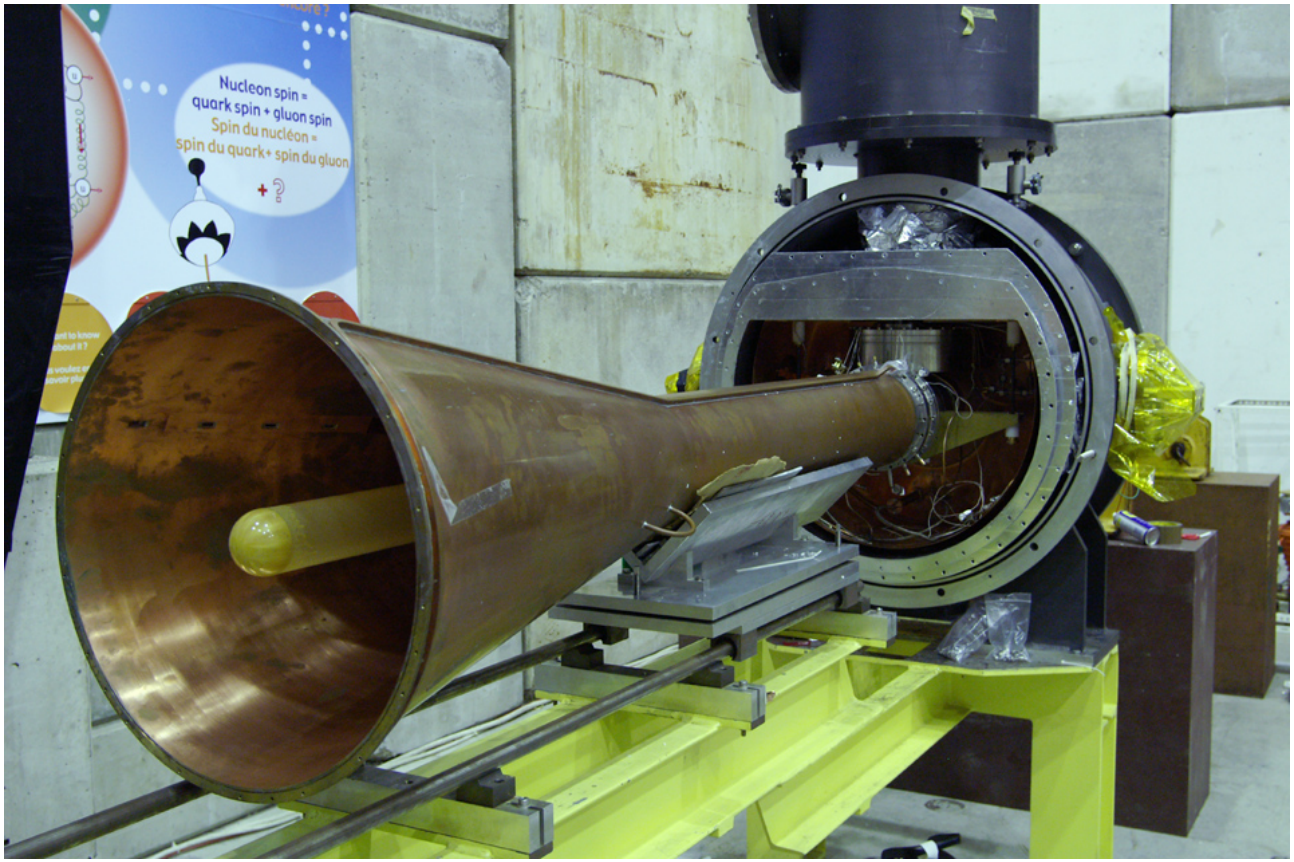
180 mrad magnet with warm bore tube



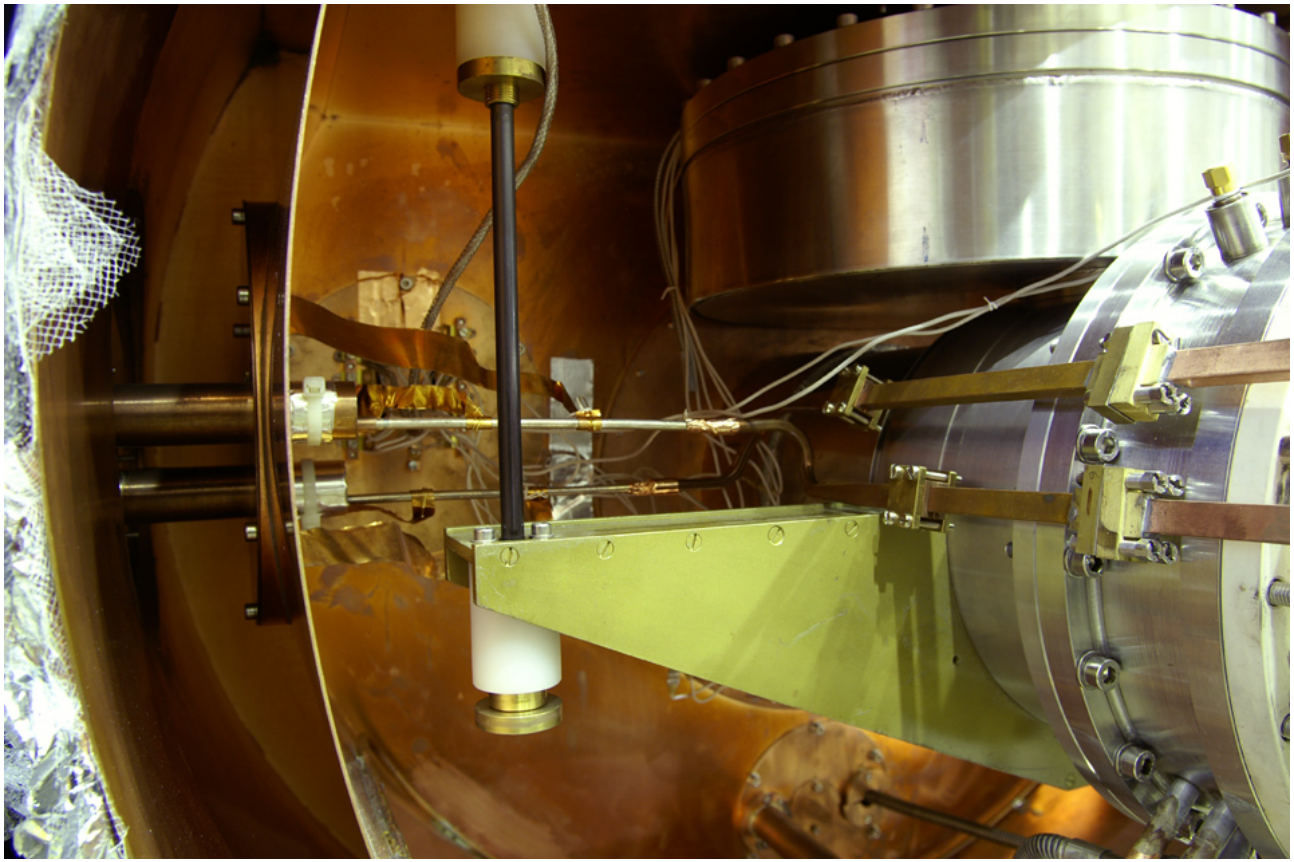
Removal of warm bore tube



Conical cavity

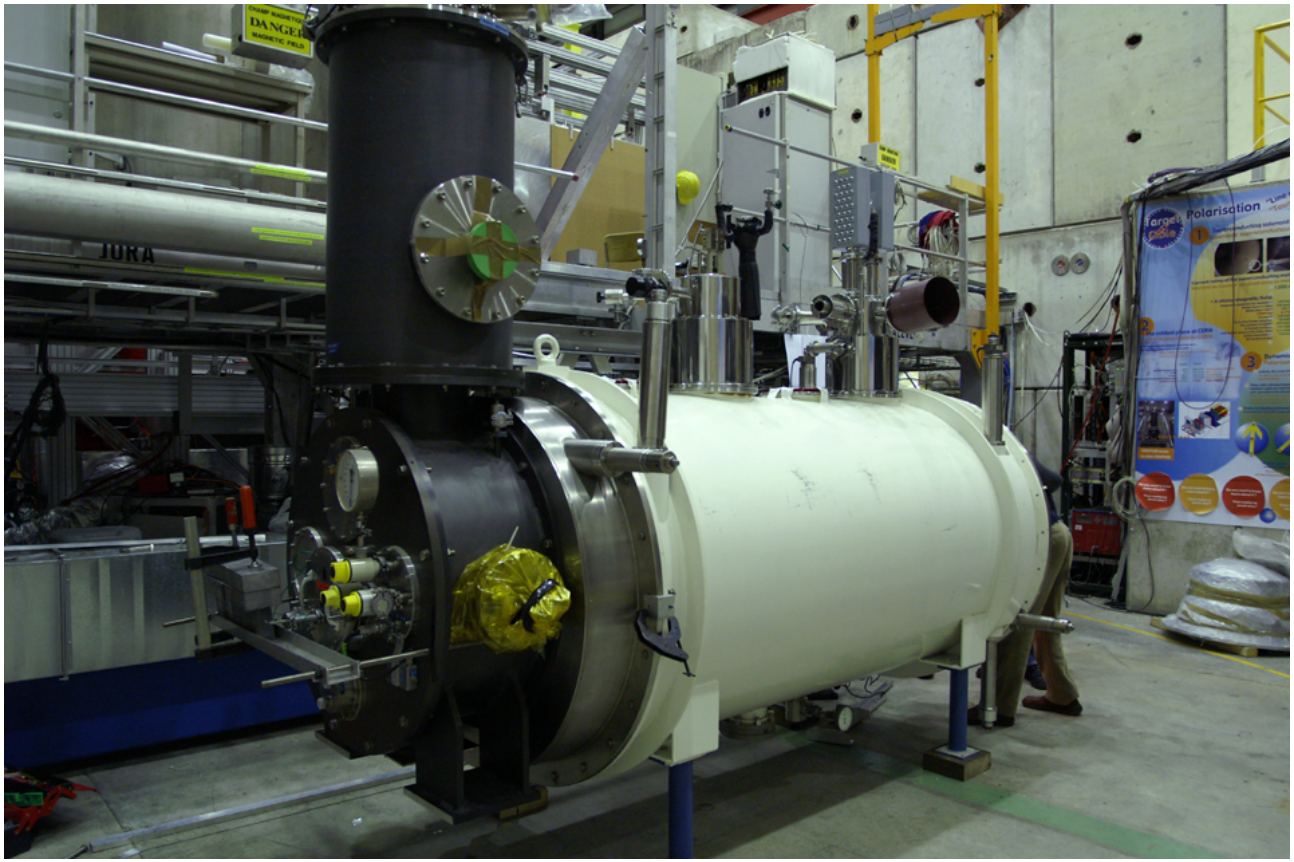


Microwave feed-through

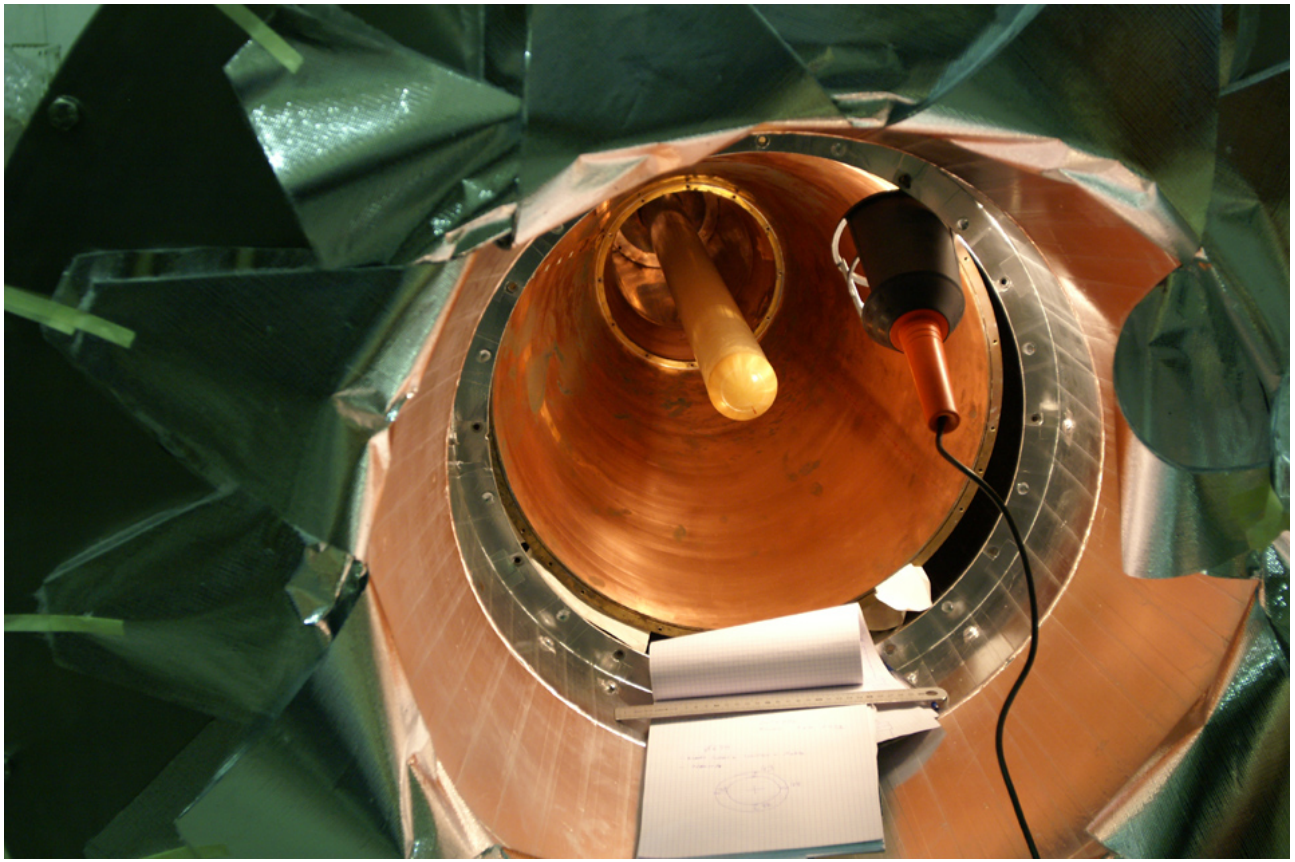


Conical cavity mounting test

Conical cavity mounting test

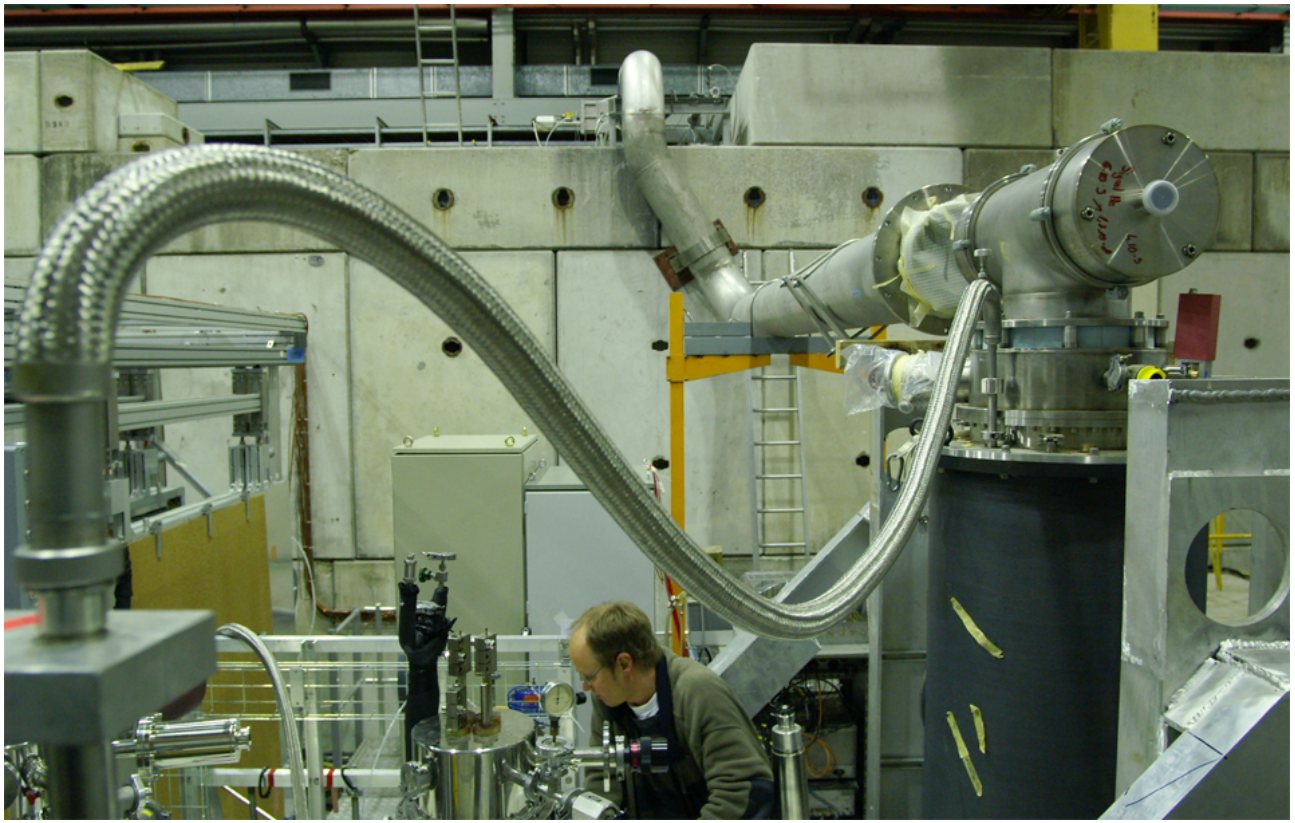


Conical cavity mounting test, downstream end

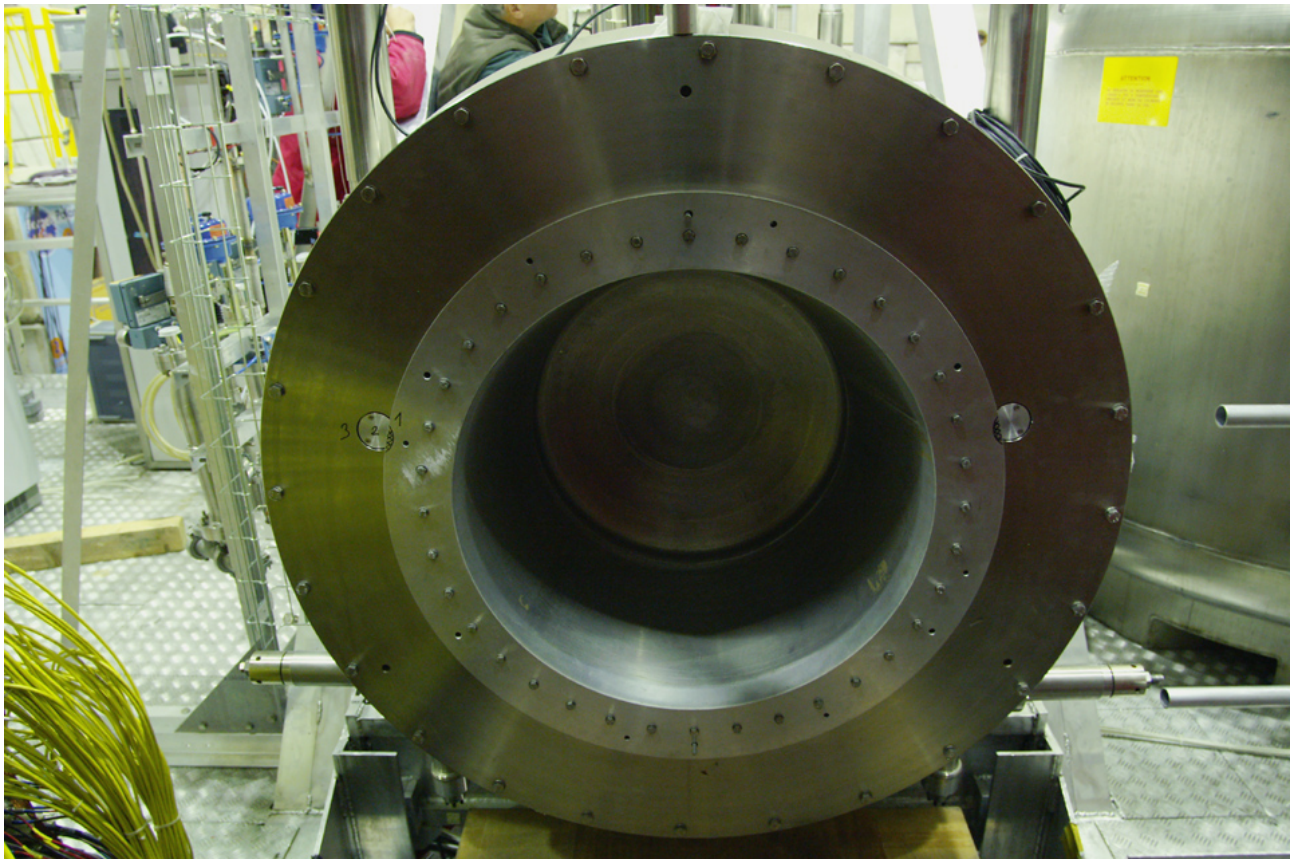


Magnet to platform

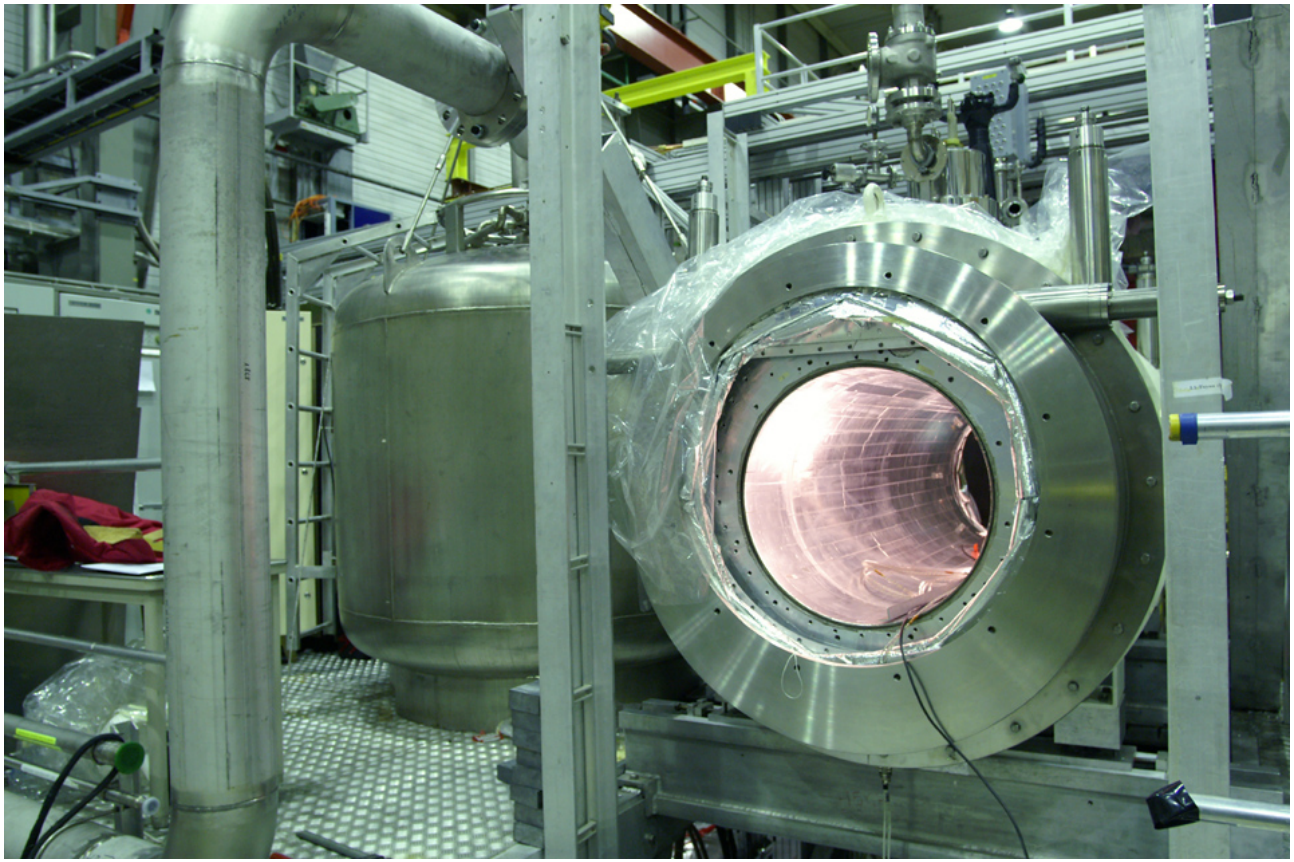
DR mounting to magnet, pump lines, helium transfer line



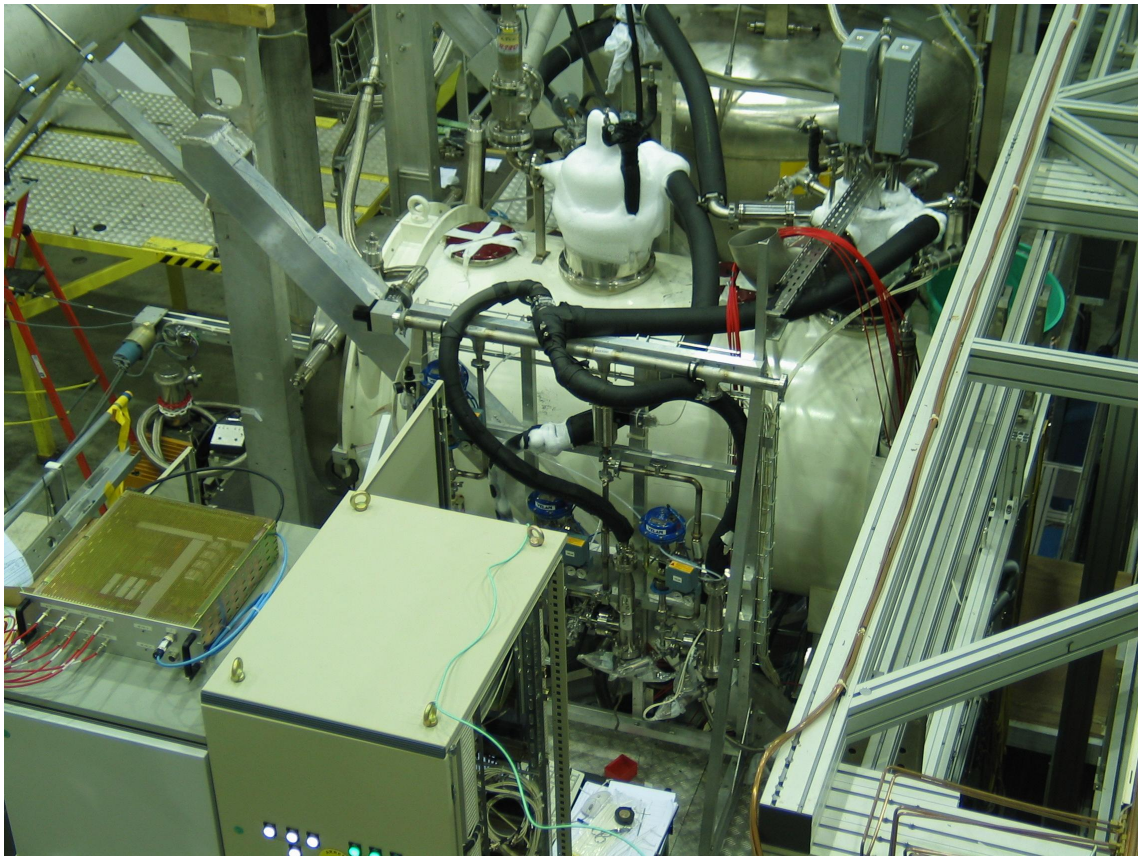
Re-entrant vacuum window, vacuum leak test



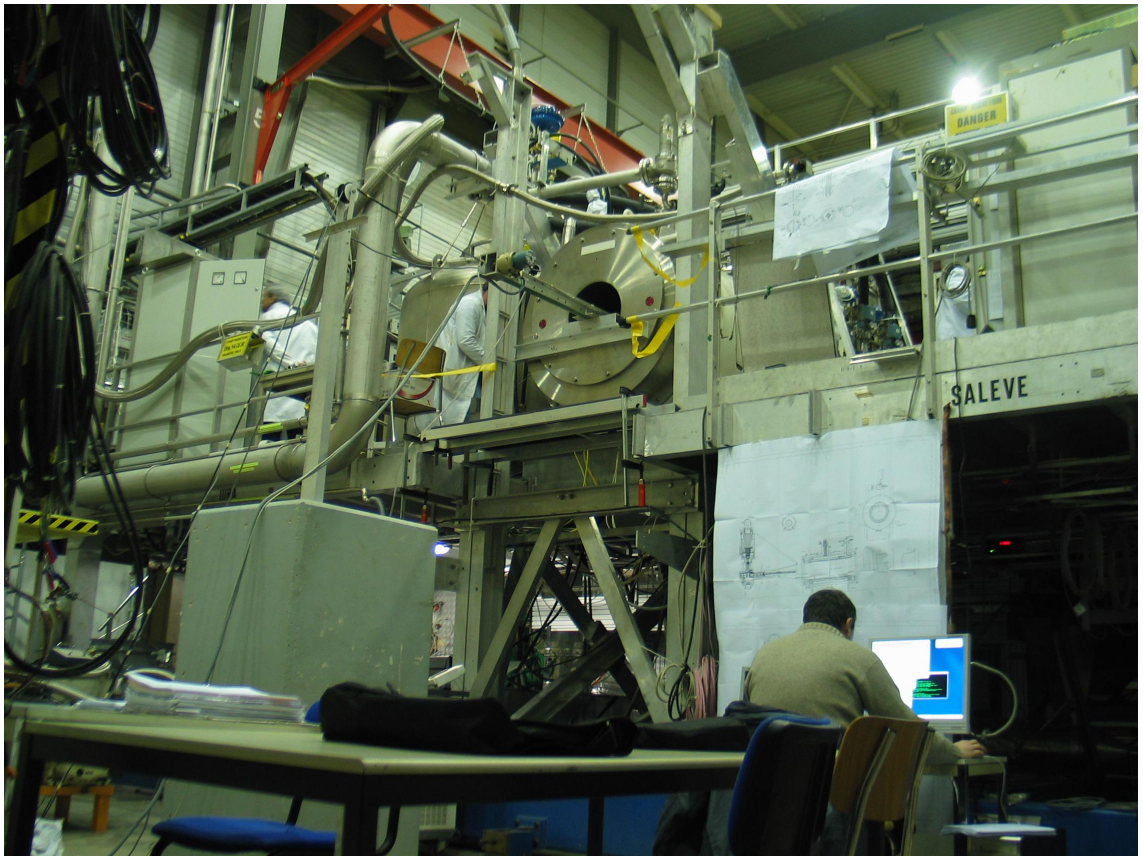
Adjusting position, screens, quench vent line



Magnet cryogenic control system



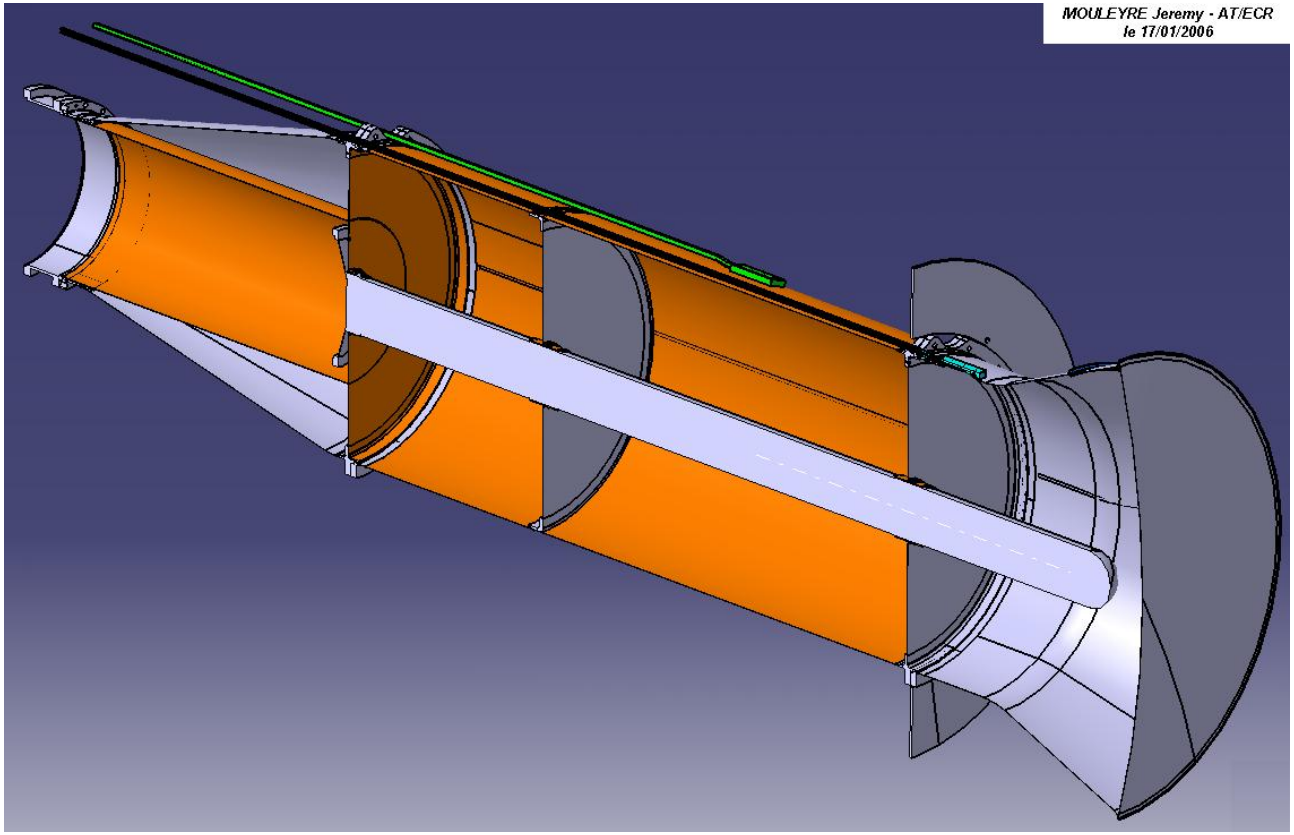
Field mapping



Checks and tests

- position of solenoid inside vacuum vessel ok
- position of thermal screens ok
- survey of magnet in spectrometer ok
- isolation vacuum leak test with DR ok
- mechanical compatibility of thermal screens and conical cavity ok
- to do: leak test DR, pump system, welding of small gas lines for magnet and DR, modify microwave feed-through and feeding to cavity, 3 cell cavity, 3 cells target holder

Three target cell cavity



Simplified tentative planning 2006

- magnet tests February
- dilution cryostat installation March
- load NH_3 end of March/beginning of April, TE-calibration, polarization
- load ^{6}LiD May 22, polarize June 9
- SPS physics start June 14
- SPS physics end November 6

NH_3 test

- 1st week: cool down
- 2nd week: loading 1 day, LHe filling 3 days, TE 3 days
- 3rd week: polarize 3 days, unload target 2 days
- 4th week: warm up magnet + DR
- 5th week: warm up magnet + DR
- 2 - 3 weeks of extra shifts (not for Easter!)

Shifts (for discussion)

- physics run: 21 weeks $\times 7 \times 3 \sim 441$ shifts and 21 week coordinations
- start of physics run: 3 weeks $\times 7 \times 3 \sim 63$ shifts and 3 week coordinations
- NH_3 test: 3 weeks $\times 7 \times 3 \sim 63$ shifts and 3 week coordinations
- total: ~ 567 shifts and ~ 27 week coordinations