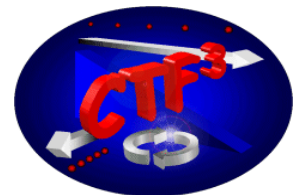


# ~~BDI~~ / PM Results in 2005 & Planned Installations, Changes

Dr. Carsten P. Welsch





# Overview

- Test of new screens in MTV systems
- Problem with SR in spectro lines
- Time resolved measurements in spectro lines
- Optical lines to streak camera lab
- Future installations

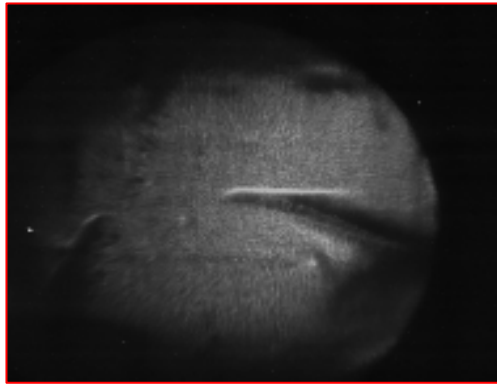




# Surface Quality

## High reflectivity screens for low charge beam

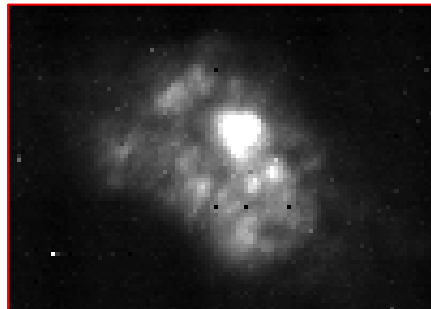
Thin Al foil is fragile



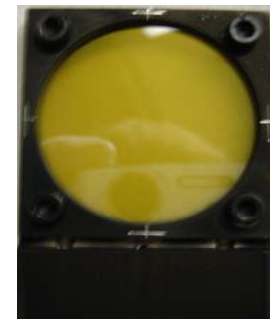
200 $\mu$ m Si wafer + Al coating



Non homogeneous surface of C



200 $\mu$ m thick Polished CVD SiC



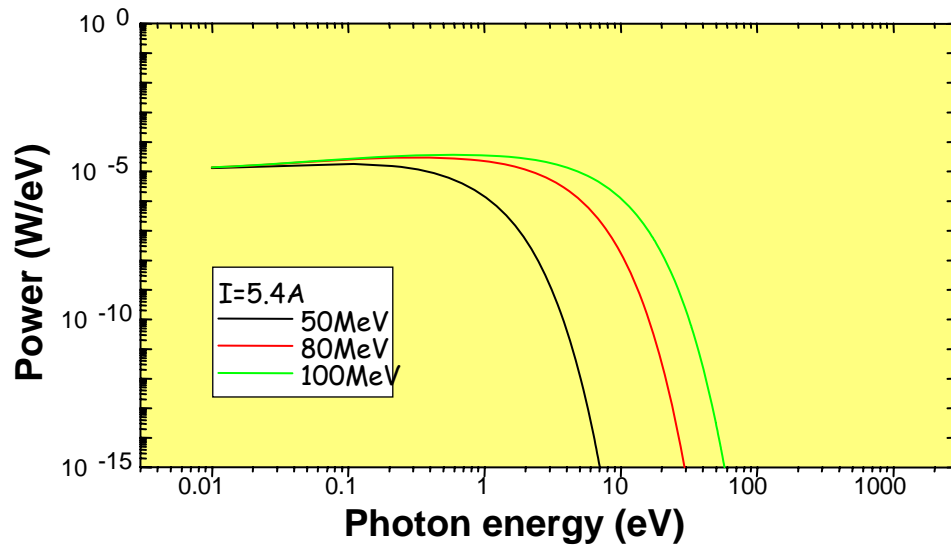
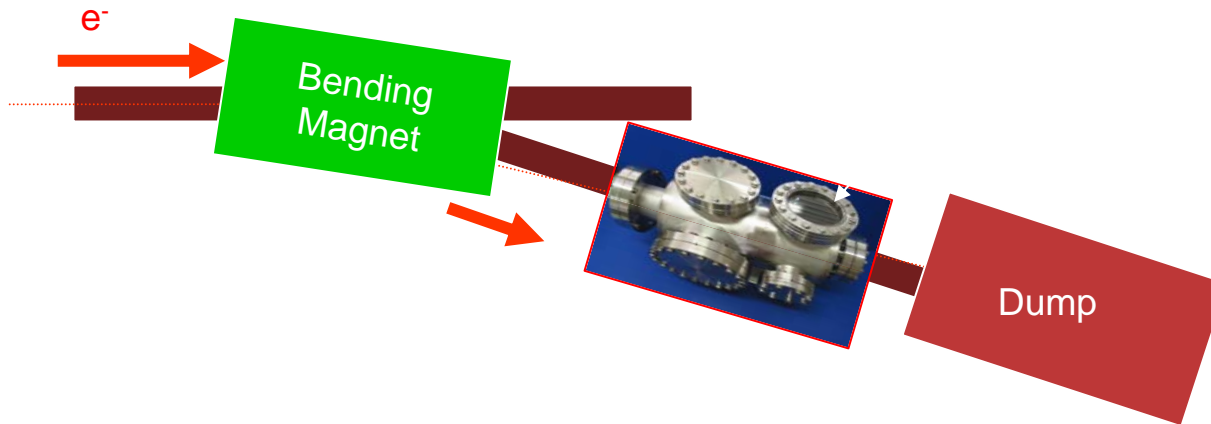
30% Reflectivity

Replace others ?





# Problem: Synchrotron Light



@ 50 MeV

$1.5 \cdot 10^{-9}(\text{SR})$

$7.7 \cdot 10^{-3} (\text{OTR})$

@ 80MeV

$5 \cdot 10^{-4}(\text{SR})$

$8.6 \cdot 10^{-3} (\text{OTR})$

@ 100MeV

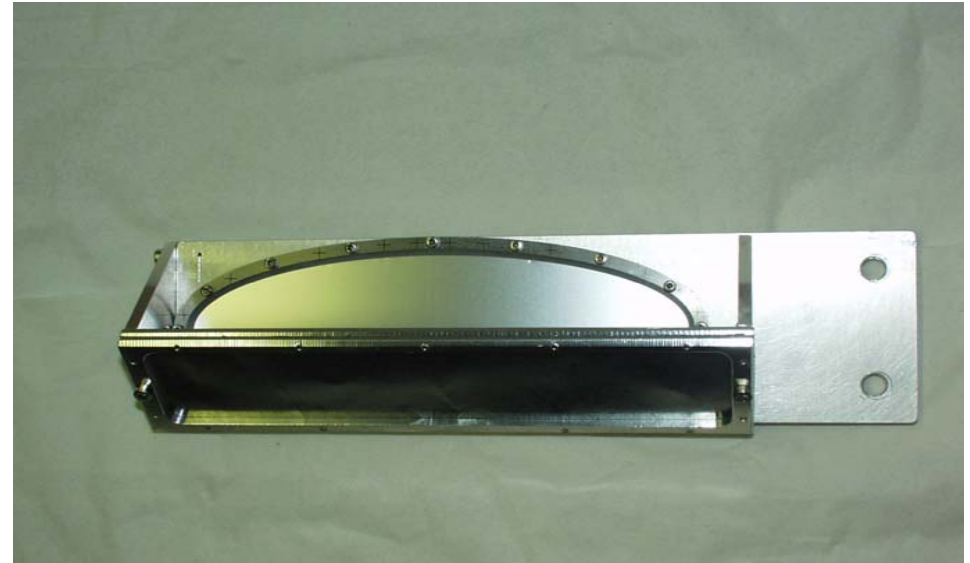
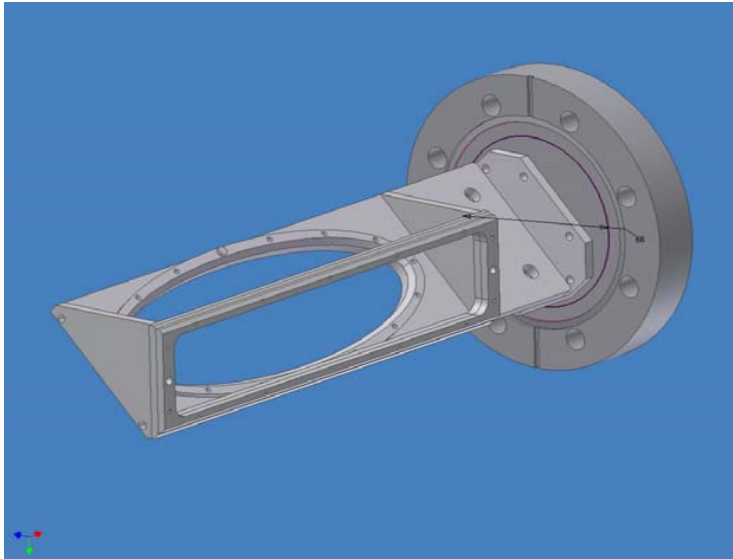
$4 \cdot 10^{-3}(\text{SR})$

$9 \cdot 10^{-3} (\text{OTR})$





# Solution: C-foil Shielding

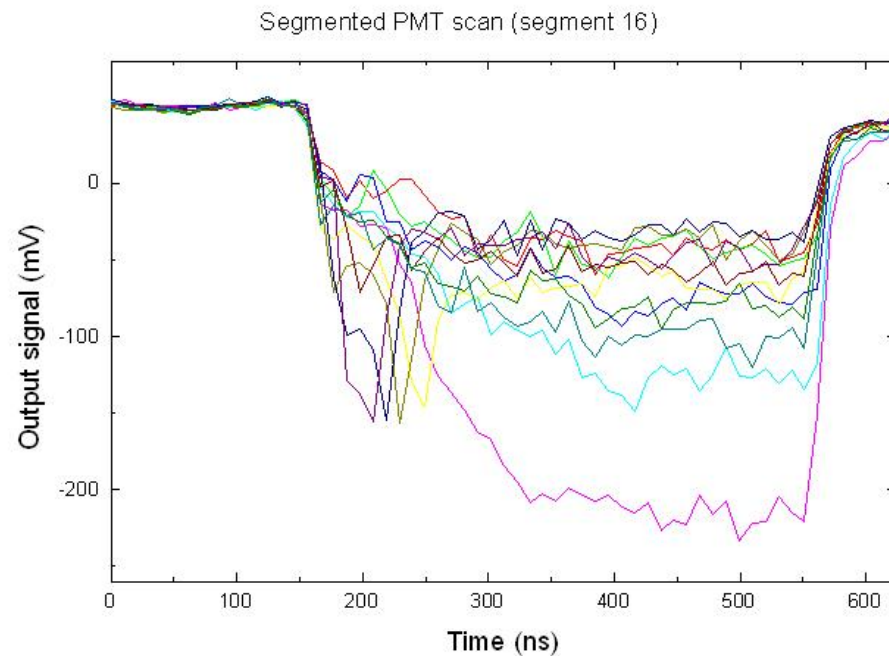
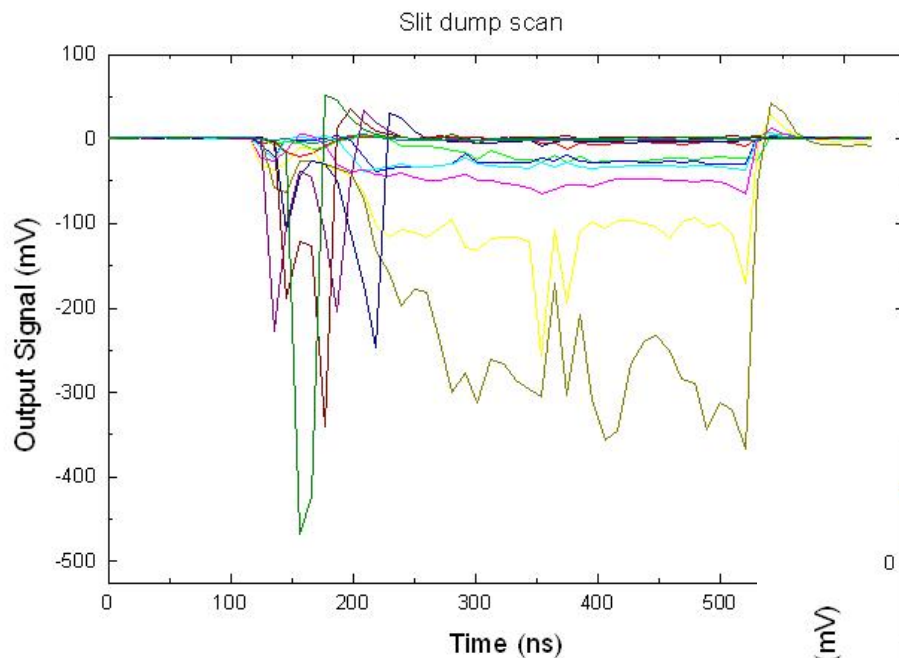


 Implemented in the last two spectrometer lines.  
Good results !



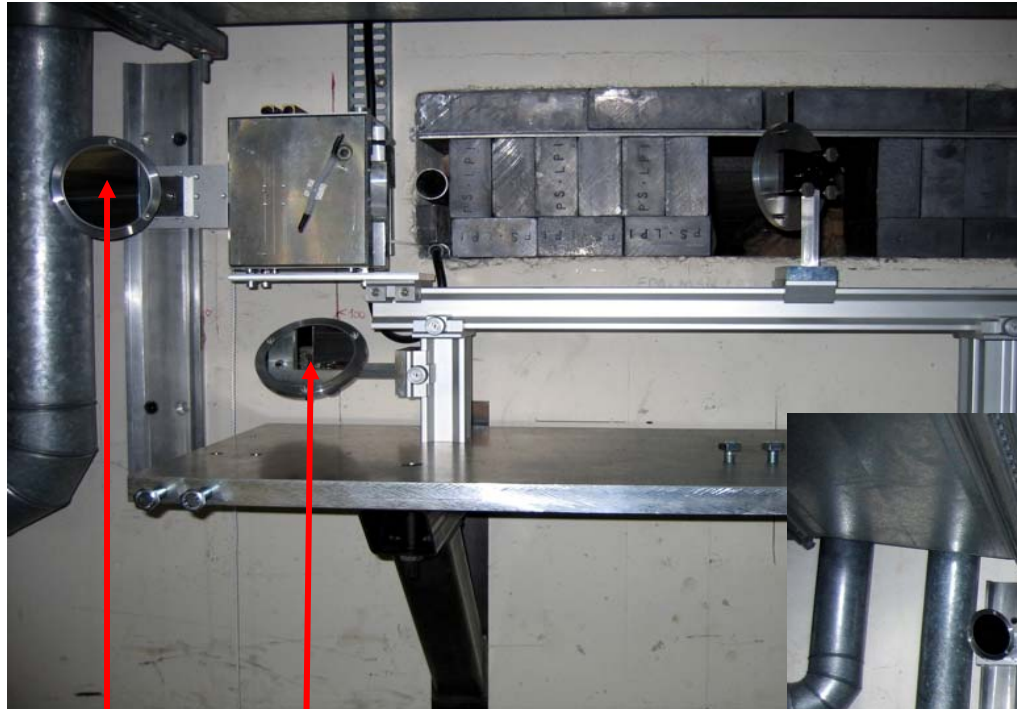


# Time Resolved Measurements





# Optical Chicane - SC line



Shielding of SC lab.

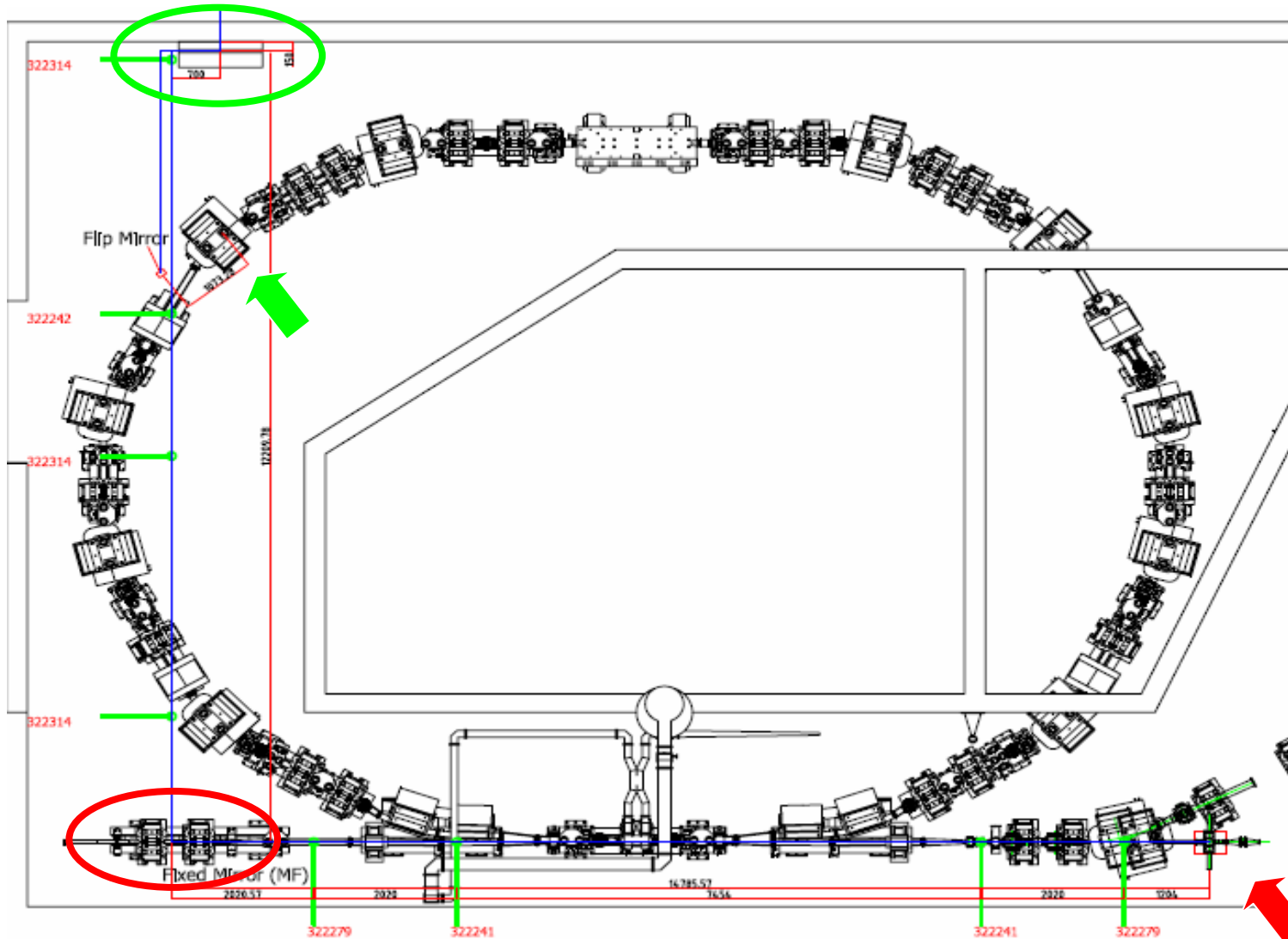
CD.MTV0361

CT.MTV0550





# Overview of Optical Lines



+ 2 x CR !

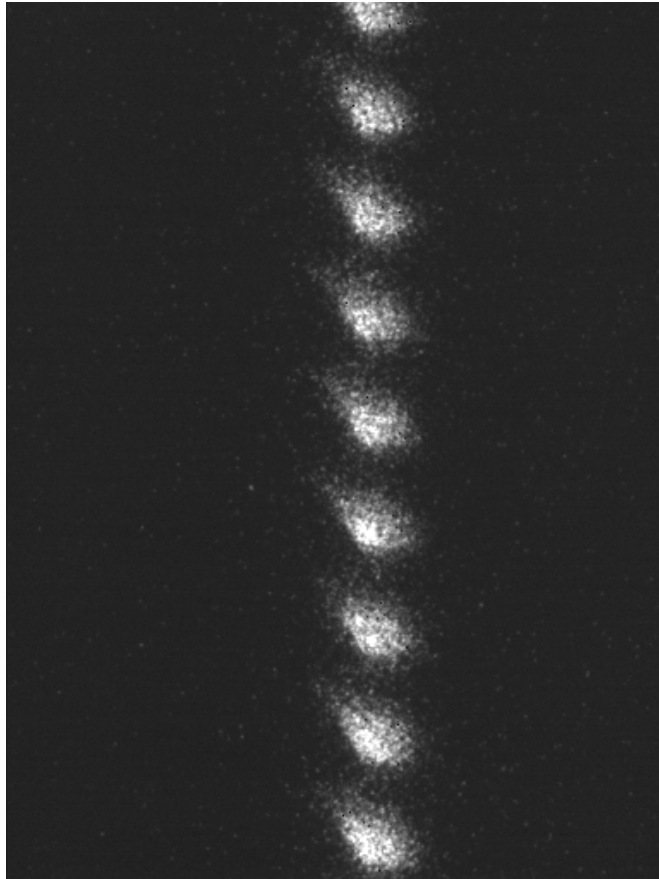




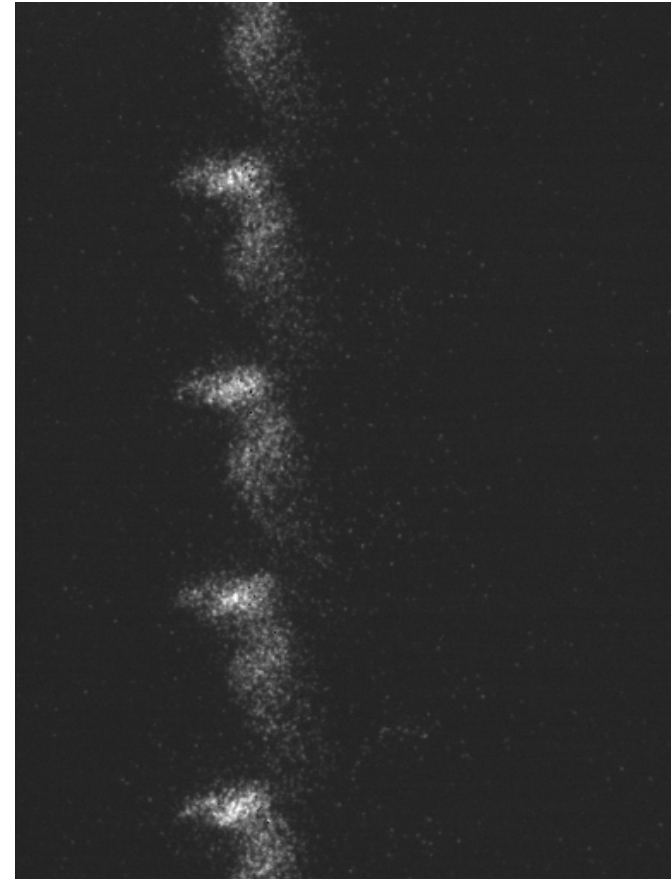


# SC Measurements

- Magnetic Injection (3GHz)



- Rf Injection (1.5 GHz)



Resolution: 250 ps / mm





# New installations (2b confirmed!)

- SR shielding & parabolic screen in CLS.MTV1050
- Renovation of CLS.SEGDUMP0440
- Single PMT Halo Monitor in CL.MTV0500
- Lead supports in Linac
- Proxitronic at CT.MTV0435
- Cables, Filter wheels and VME cards for Frascati chicane
- Change screens ?
- CTS.MTV0455 => behind CT.MTV0550
- New CRM.MTV0210, CT2.MTV0106
- CR.MTV0706, CR.MTV0751, CR.MTV0796
- MTVs for photoinjector tests SC line





# Not to Forget the Crew...(in alphabetical order)

Patrick Amiot, Cathelijne Bal, Enrico Bravin, Stephane Burger, Filippo Caretti, Christian Dutriat, Morad Hamani, Phillippe Lavanchy, Thibaut Lefèvre, Romain Ruffieux, Erminio Rugo, Guy Yvon

+ Italian collaborators ...

