

2011 PS highlights

OP-Day 2012

Conference Center Archamps, France

26 January 2012

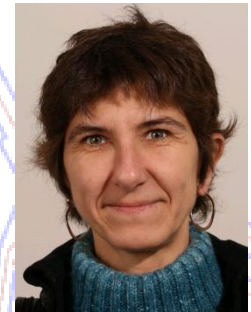
Arrivals & Departure

- 2 new PS operators
 - Jean-Charles Dumont
 - Christoph Kittel
- 2 new technical students
 - Davide Gamba (CTF3)
 - Alexander Huschauer (PS)
- Retirement of Gilbert Adrian
- Leave of Franck Peters



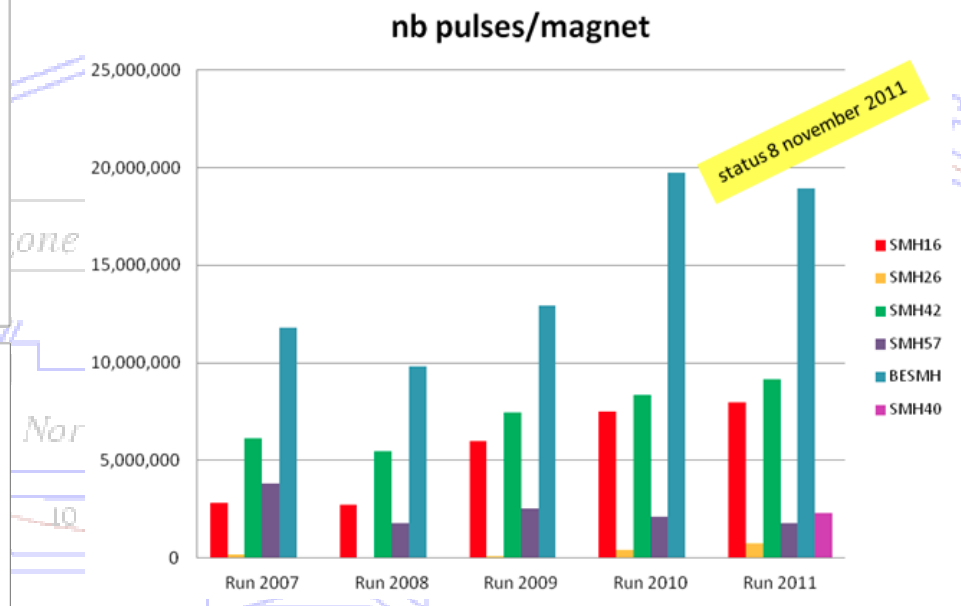
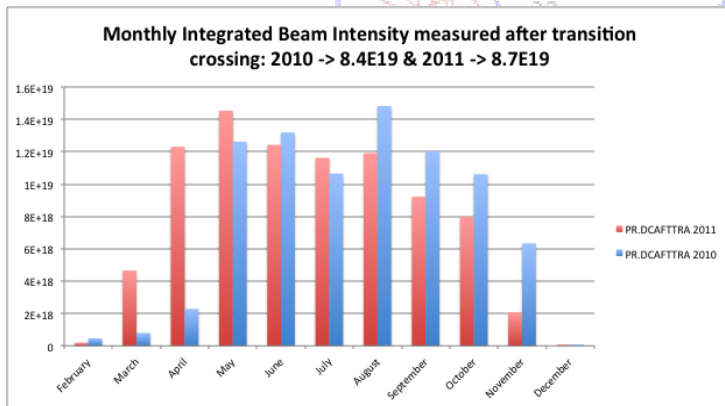
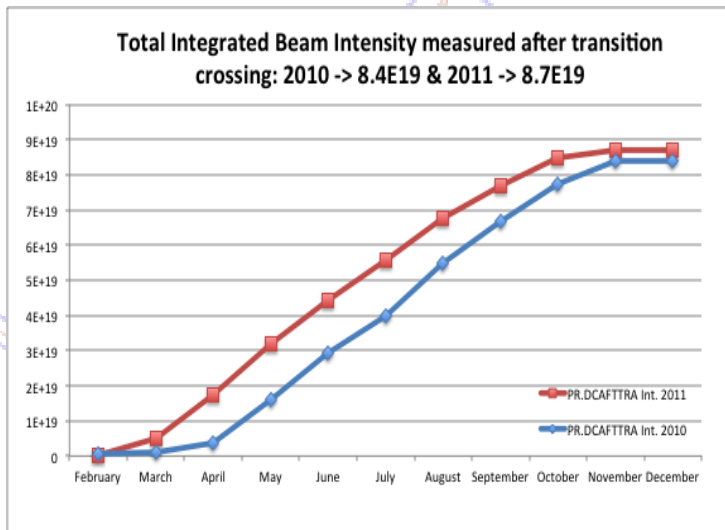
New PS Machine Supervisors

- Ana Guerrero Ollacarizqueta (BI-SW)
 - Working on fast wire scanners software
- Jakub Wozniak (CO-DA)
 - Working on Software Interlock System (SIS)



PS overall performance

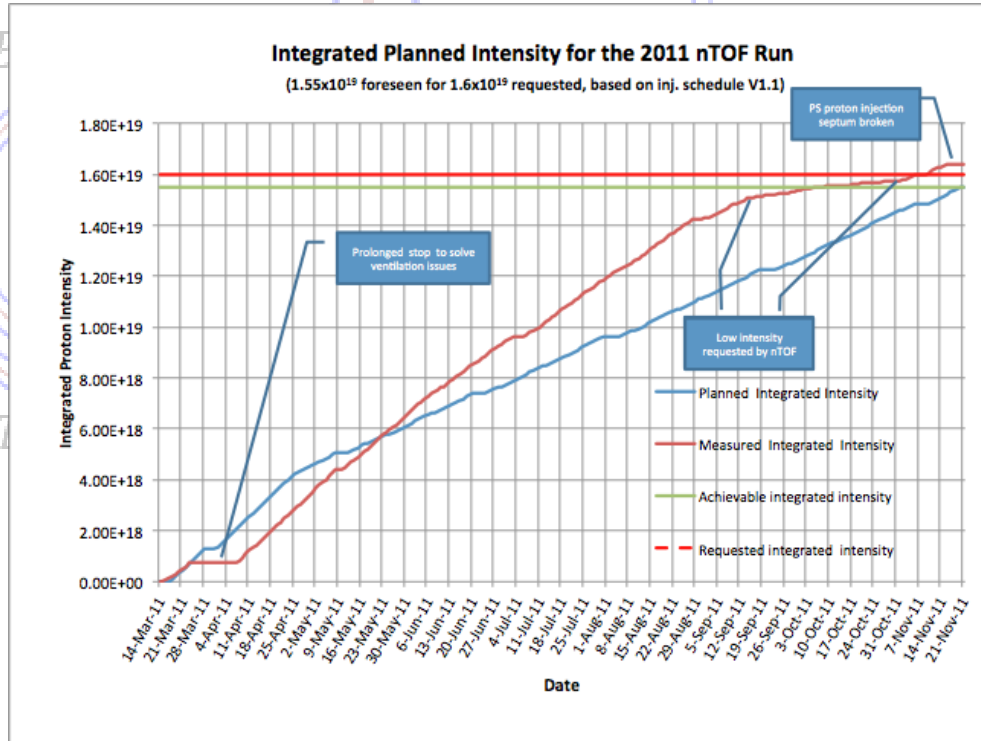
Above 90% PS machine availability on average



20 million pulses from 08/2009 to 11/2011 for PS injection septum

nTOF 2011

- Planned 1.55E19, requested 1.6E19
- Accumulated in 2011: 1.639E19



Thanks to all who contributed to this success !!!

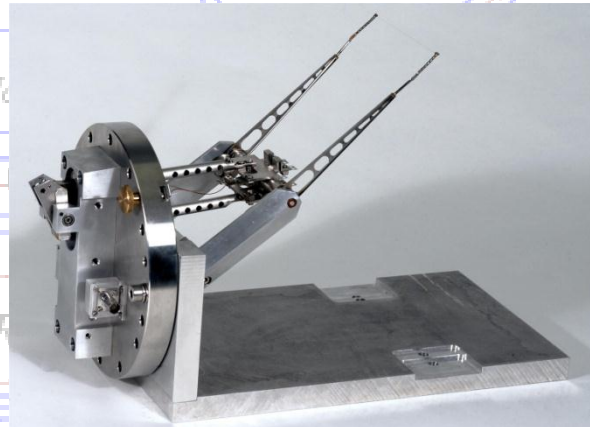
- 10 day stop due to ventilation and air activation issue in spring and prolonged period of low intensity running in October were largely compensated.
- Reasons for this success: High machine availability and continuous super cycle and beam intensity optimization

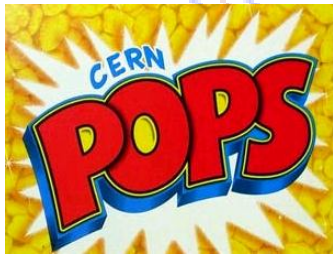


PS main problems

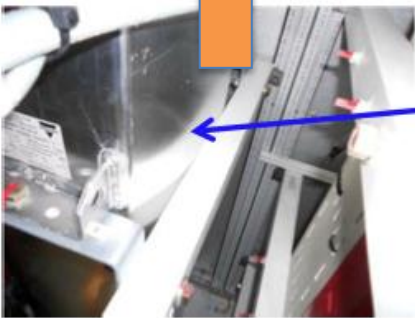
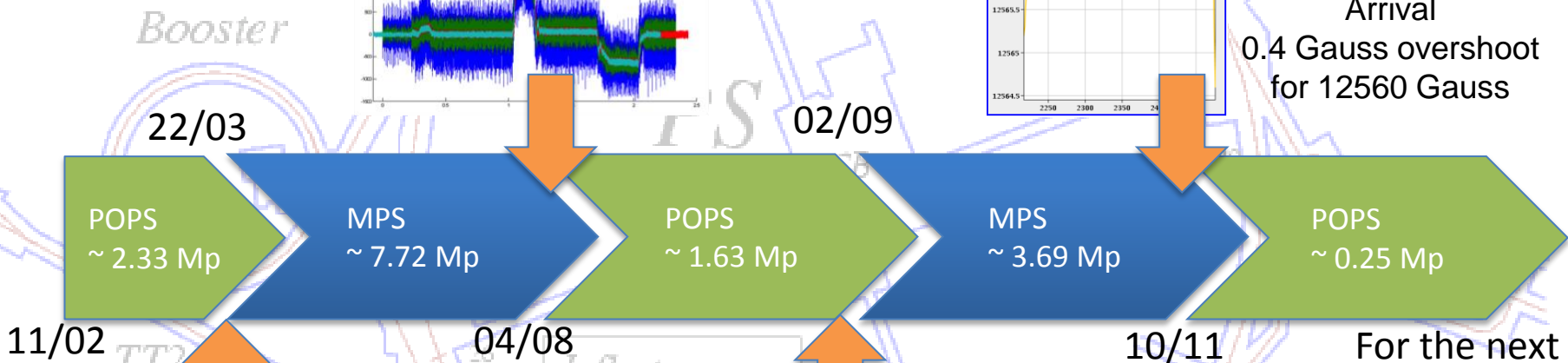
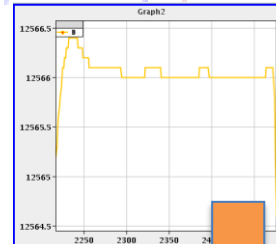
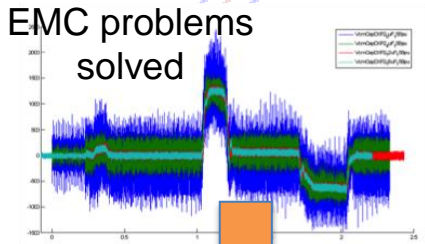
- Proton injection septum 42 failure on 16/11
 - Replaced during the winter shutdown
- Vacuum leaks on Fast Wire Scanner 65 (vertical) *Saturday 11/06* and FWS 54 (horizontal) *Sunday 13/11*
- POPS difficult start

Pictures from A. Guerrero





POPS & MPS Pulses



The capacitors have swollen

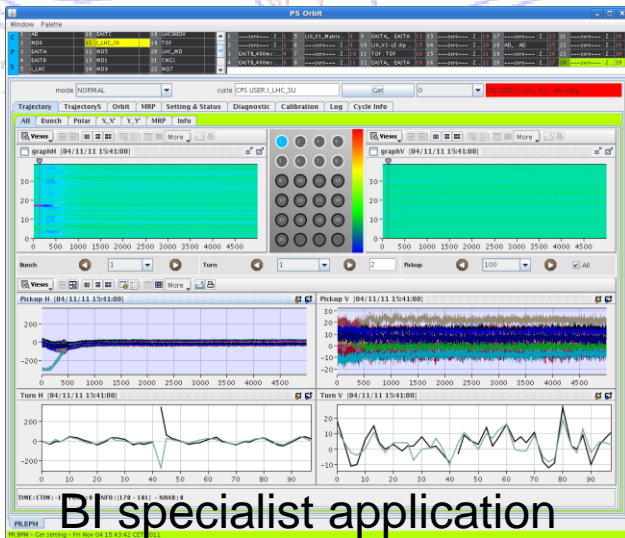


The "multi-contacts" melted

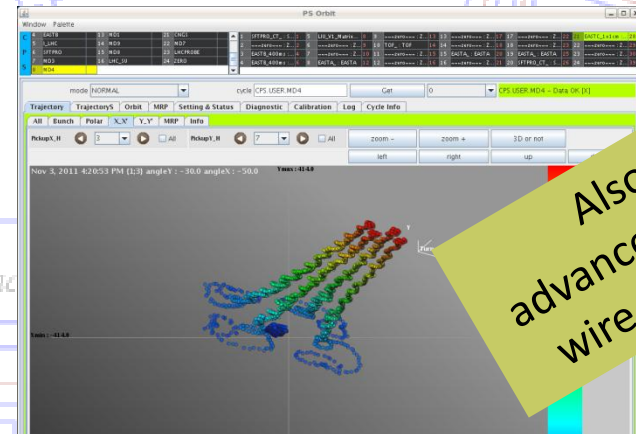
- In total the PS magnets pulsed about 15.6 Million pulses in 2011
 - POPS pulsed about 4.2 Mp
 - MPS pulsed about 11.4 Mp

“New” PS Orbit Measurement System

- The PS was equipped with new orbit measurement electronics in 2010.
- Many progress has been made in 2011 thanks to the close and fruitful collaboration between OP and BI.
- Few improvements and issues are presently being addressed
- New system and support highly appreciated by OP !



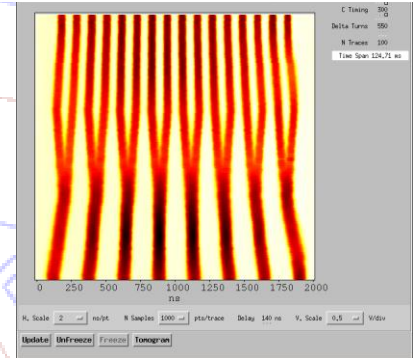
BI specialist application
also used operationally



Also good
advancement on the
wire scanner front

Making x-x' measurements
for MTE possible

Outlook 2012



- Beam operation for physics
 - LHC beam operation/production → bright beams
 - Beams for all other physics users (TOF, EAST, AD ,CNGS, SFTPRO,.....)
 - Last year for DIRAC in the PS
- Machine Development studies
 - Studies on “Batch compression” for high brightness LHC beams
 - Decisive MDs for LIU project
 - MDs for MTE
- Decisive year for POPS (last year of motor generator set as spare option)
- Perhaps in 2012 approval for East Area renovation project
 - Study will be presented on 1st of February

Thanks for your attention

Thanks to R.Steerenberg, A.Guerrero

