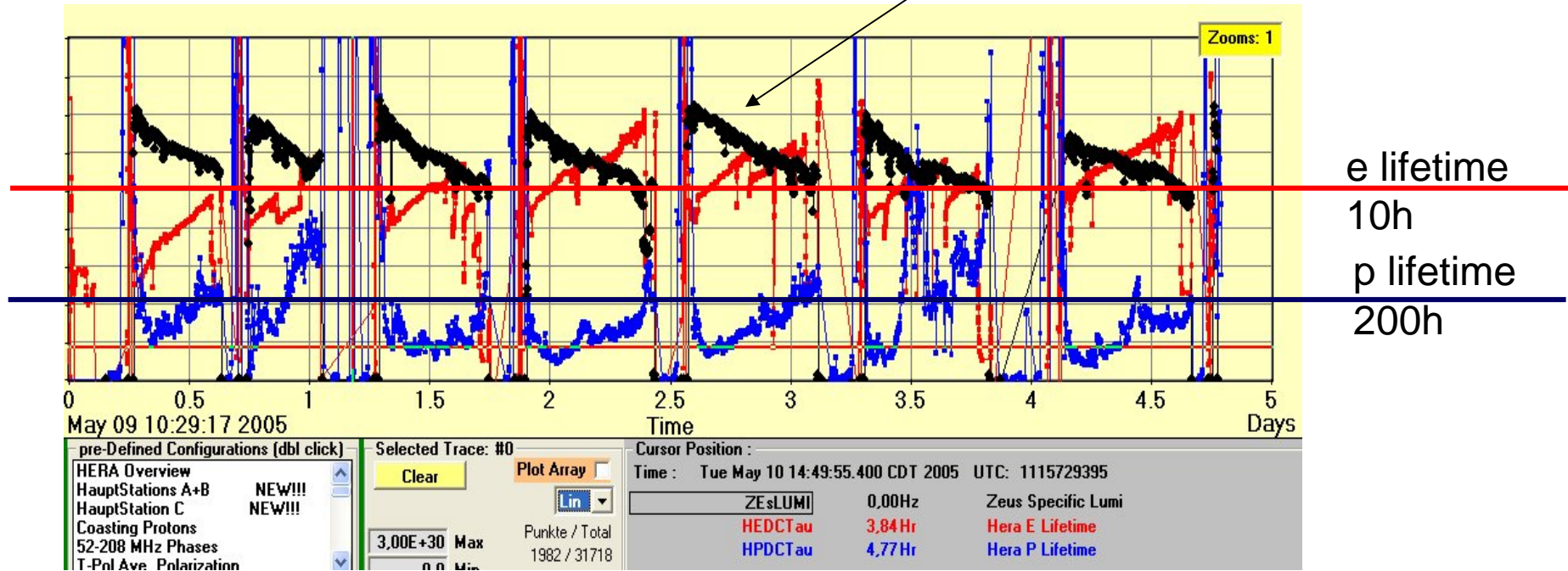
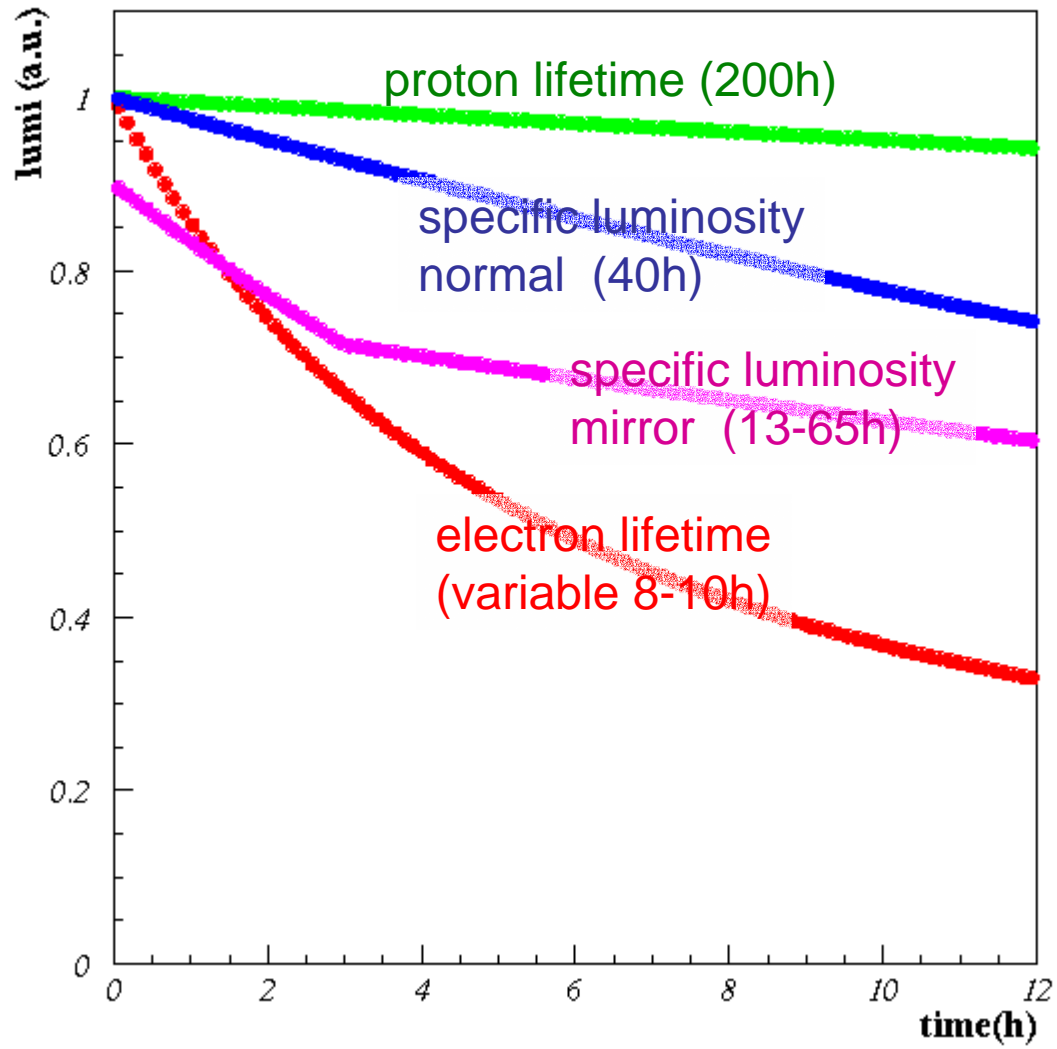
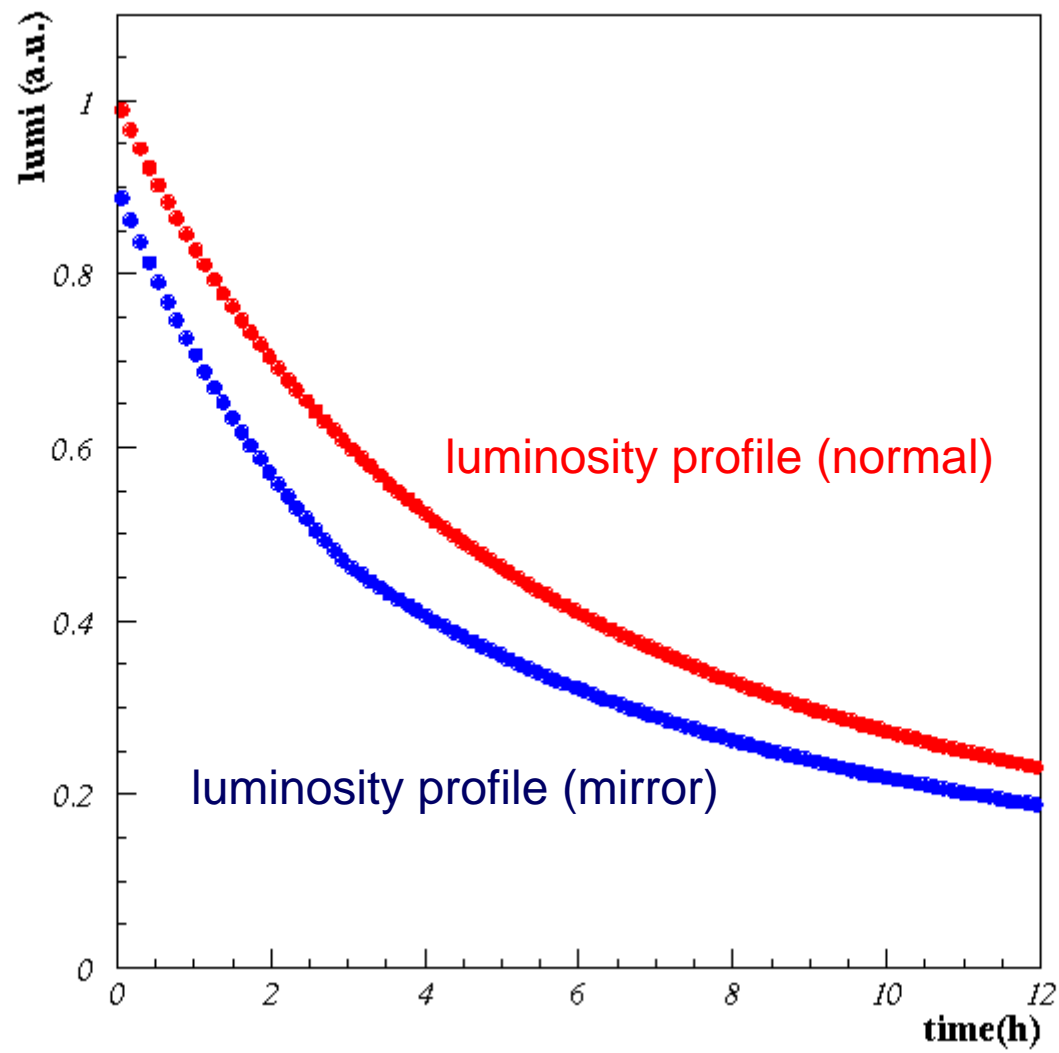


specific lumi  
"lifetime" ~40h



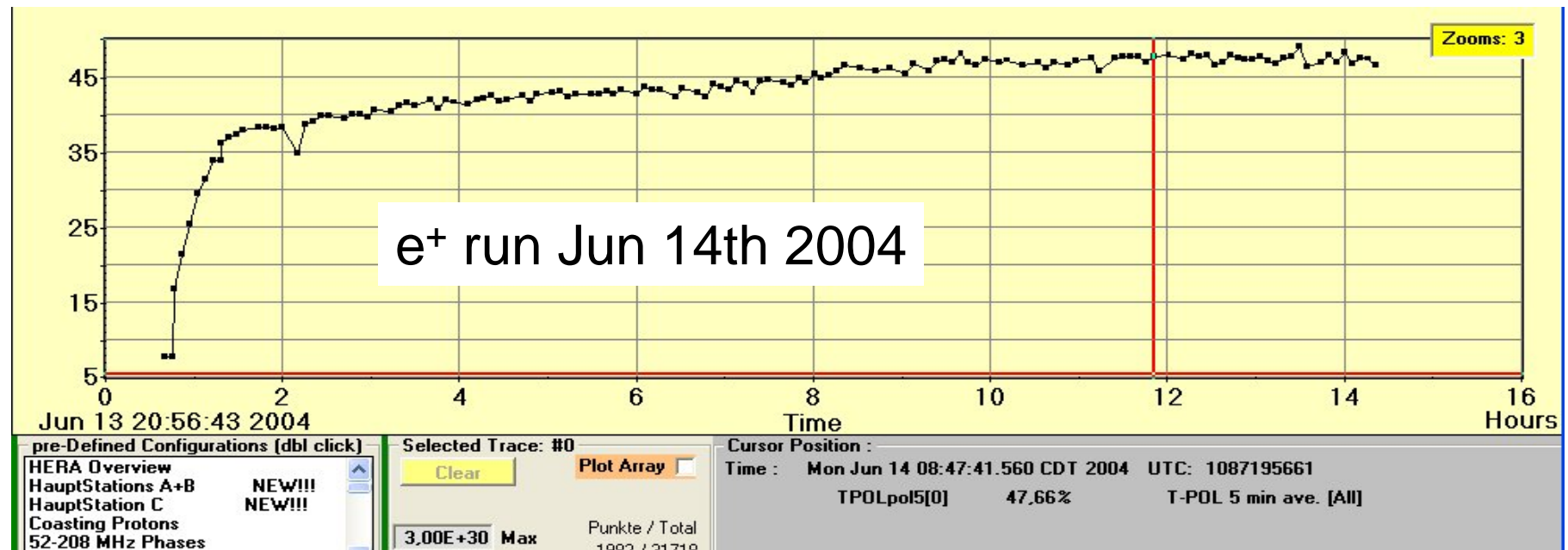
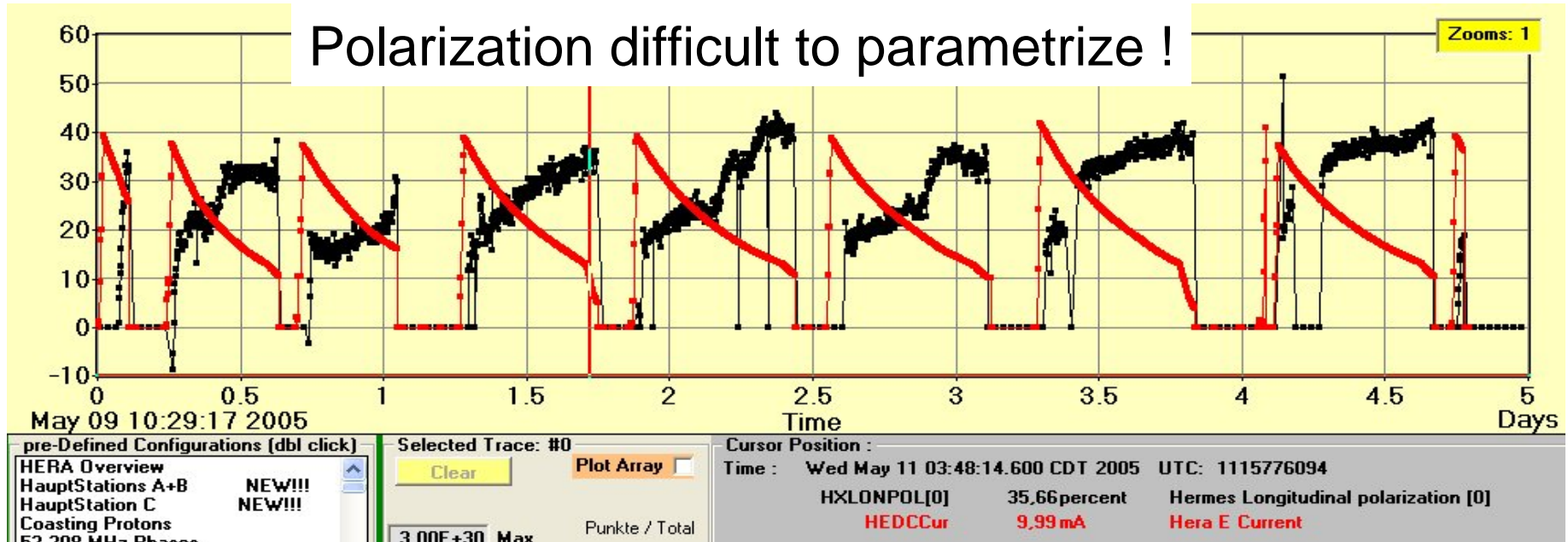
Model for HERA  
luminosity in a fill

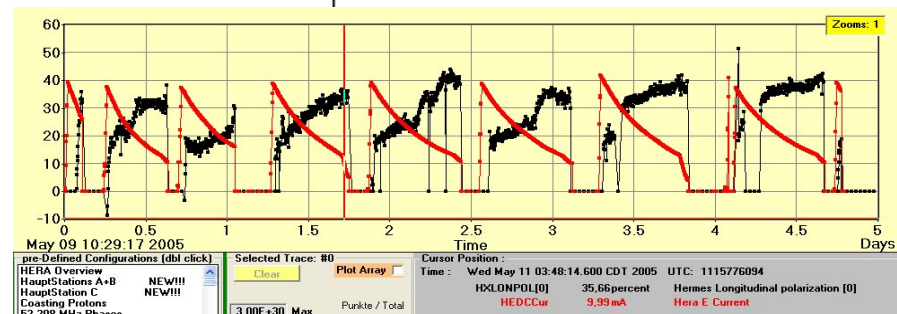
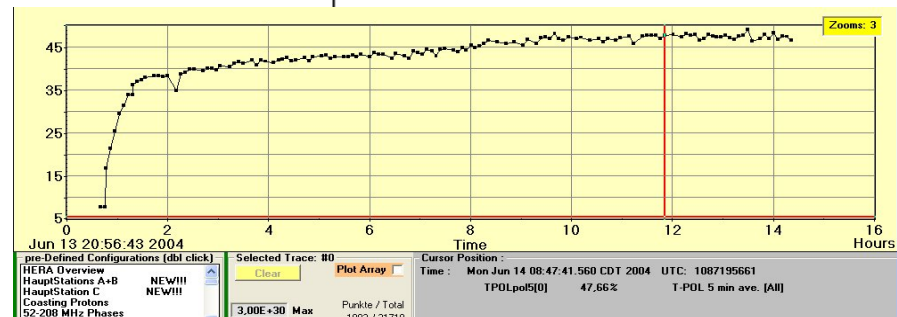
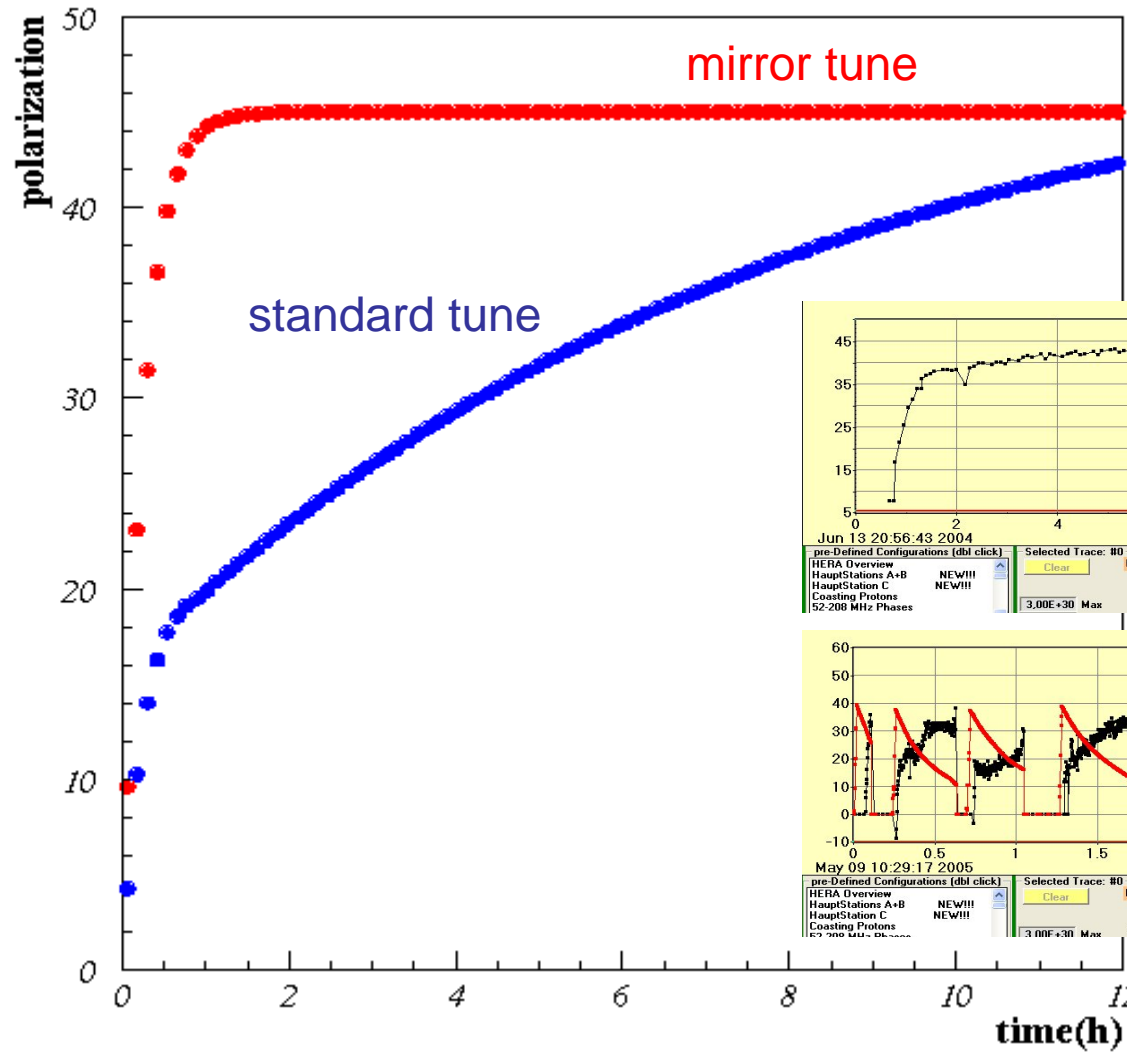


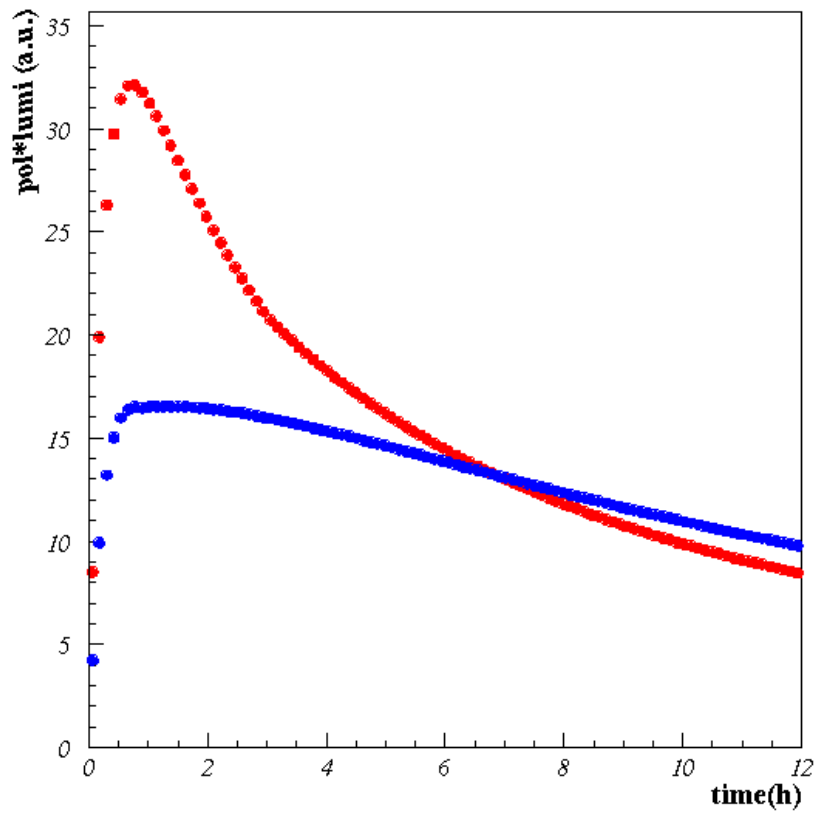


20% reduction of the integrated luminosity

Polarization difficult to parametrize !







Factor 1.5 improvement in  
the lumi averaged polarization

$$\frac{\int pol \cdot lumi}{\int lumi}$$

- Standard tunes 25%
- Mirror tunes 43 %