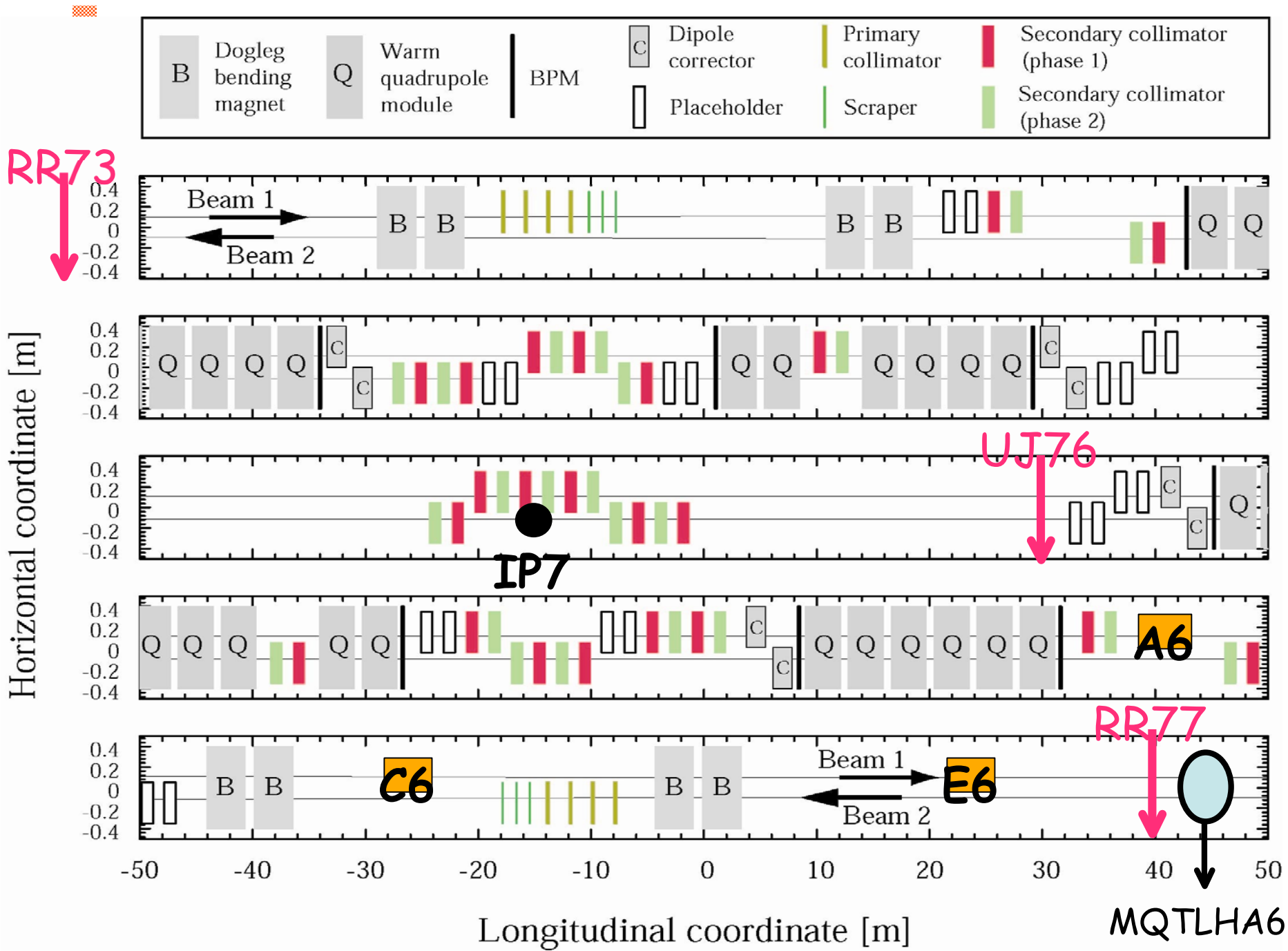


Shielding study for the regions UJ76/RR73/RR77 (I)

Katerina Tsoulou
Alfredo Ferrari, Vasilis Vlachoudis,
Mario Santana, Matteo Magistris

46th Collimation WG Meeting, 12/11/04



With Absorbers Case

Unfortunately, no new plots for the radiation levels
(to be published next Friday)

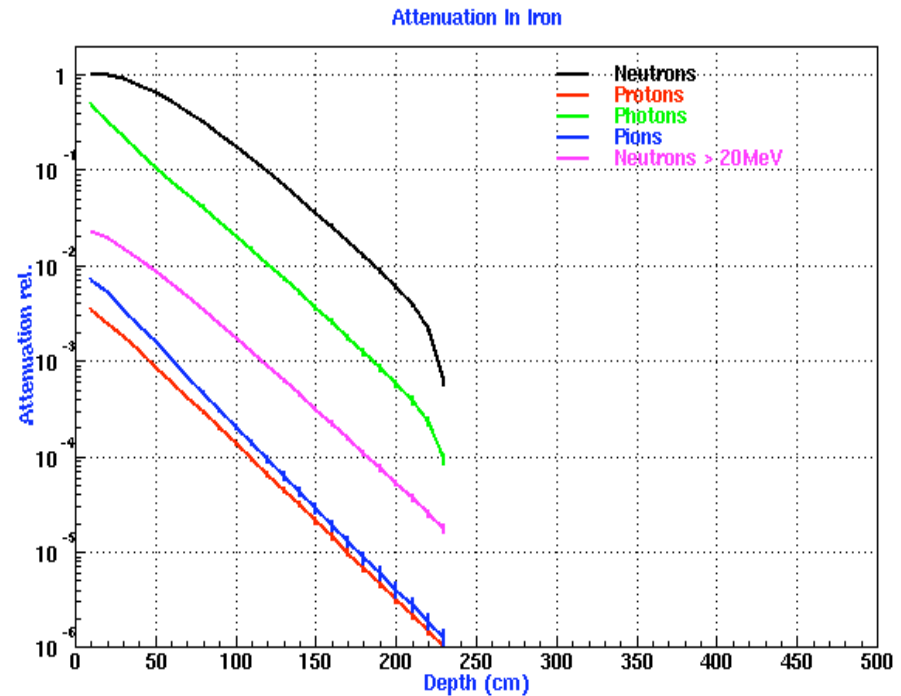
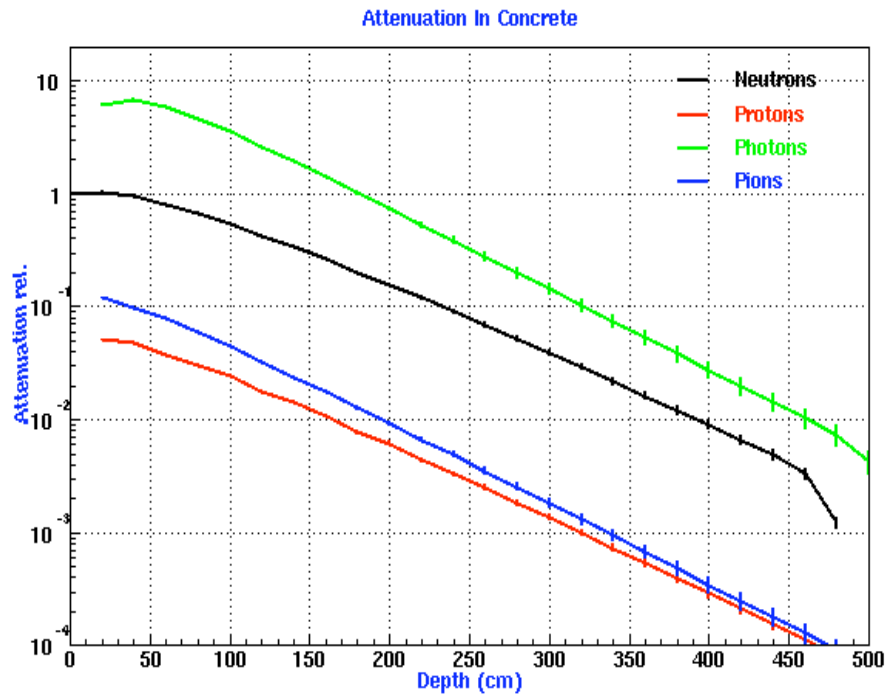
BUT: We don't expect to be much higher than those already
presented in

[http://lhc-collimation.web.cern.ch/lhc%2Dcollimation/files
/KTsoulou_2004-09-20.pdf](http://lhc-collimation.web.cern.ch/lhc%2Dcollimation/files/KTsoulou_2004-09-20.pdf)

Shielding Study

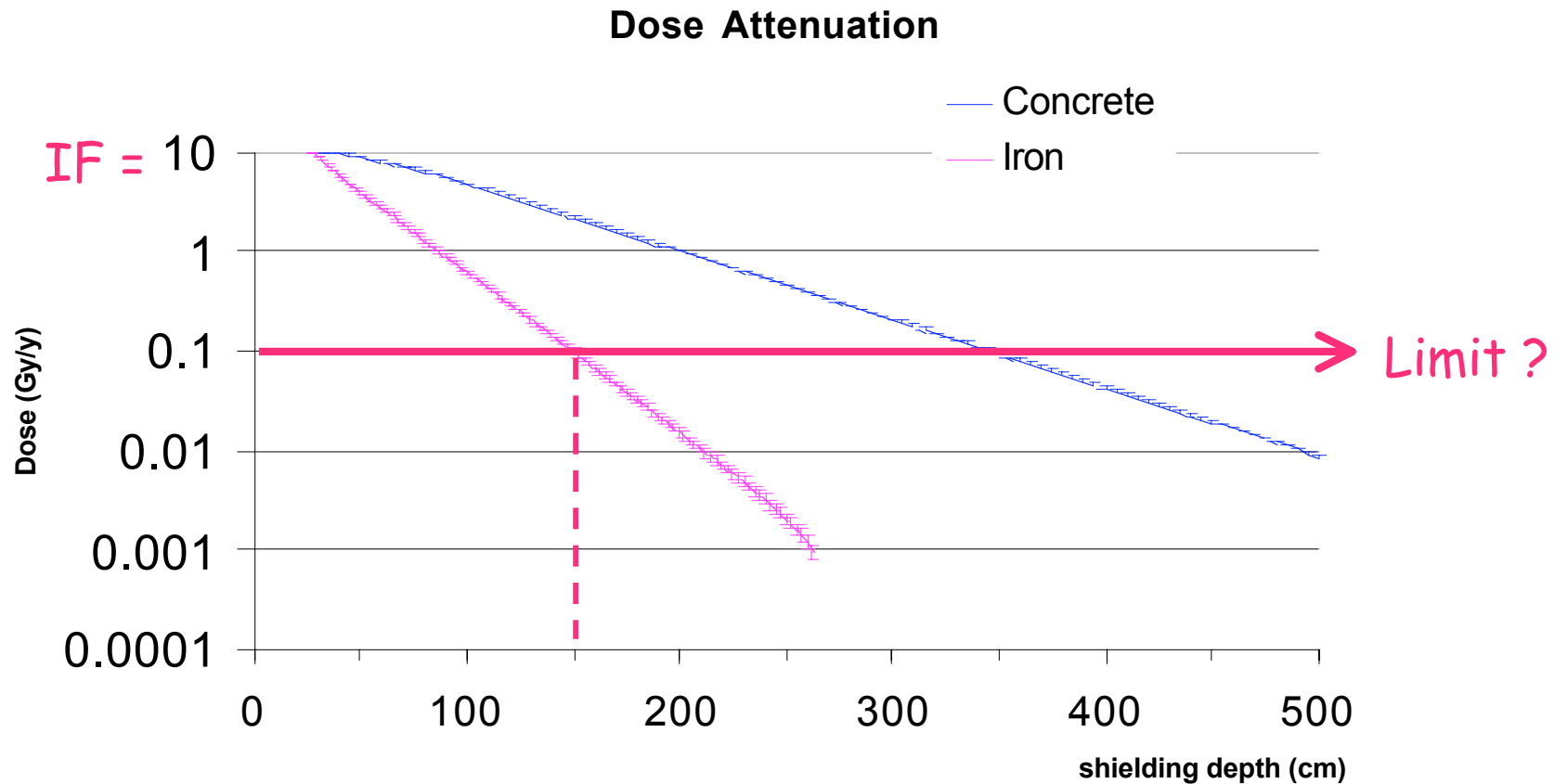
Shielding is needed for the RR73/77.

For the spectra in the RR entrances the attenuation will be:



Shielding Study

For the dose in the RR entrances the attenuation will be:



Shielding Study

Actions to take:

1. Verify the Dose and Fluence levels in the RRs
(Katerina Tsoulou → next week)
2. Discuss about space for shielding in the tunnel or
in the RRs (Roger Valbuena ?)
3. Estimate the number of sensitive electronics and
their limits so as to calculate the annual failures
(Thijs Wijnands ?)
4. Re-do calculations with shielding (?)