

Memo from: Bruno Zotter

Subject: Summary of my own conclusions of the workshop

- 1) Go on with your plans to coat the most sensitive locations in the PSR (Al stripper chamber, sections with ceramics and with high losses) with Ti nitride - make sure that the deposition technique avoids rapid flaking off;
- 2) If this is not sufficiently successful, install a transverse feedback system based on the wide-band split cylinder pickups - Dudnikov showed an example where a simple feedback seemed to work fine on e-p. If the oscillations are kept sufficiently small by it, there may be no need for high power;
- 3) Study and explain the large number of electrons measured in the horizontal plane of the dipoles in the arcs. If possible, install a "Rosenberg electrode" in a special dipole chamber - this might not be so difficult in the horizontal plane. The electrons should really spiral tightly around the vertical magnetic field lines. There seems to be no obvious source of longitudinal electric field which could cause horizontal crossed field drift - neither is it the right direction for gradient drift. The only possible explanation I see at the moment - beside confusion of the measurement by the magnetic field - is local generation of electrons by loss of protons at the chamber wall, and that should be avoided anyhow. Thus explaining the observation might help to better understand the production mechanism of electrons in PSR and point ways to reduce it.