

Minutes of RESULTS, PITZ Physics Seminar, 1. 10.2015

Project: PIZ

Participants: G.Vashchenko, P. Boonpornprasert, I. Isaev, G. Pathak, G. Loisch, M. Krasilnikov, D. Melkumyan, D. Richter, S. Philipp, M. Pohl, M. Gross, A. Oppelt, F. Stephan

Agenda:

- 1) G. Loisch: Proposal Gas Discharge Cell
- 2) I. Isaev: Lamor angle study on electron beam asymmetries, data analysed here are still from the case with the usual one vacuum mirror
- 3) AOB: distribution of recent papers, annual work outing reminder

Results:

- 1) G. Loisch: short overview of different plasma cells, introduction to gas discharge plasma cell, planned plasma cell parameters, **it is not foreseen to use a bunch train in the plasma since the plasma density is not constant in the 10 microsecond long discharge current pulse**, plasma cell design, **the plasma chamber has to be electrically perfectly isolated from the electron beamline and the grounding of the plasma chamber has to be considered in very much detail**, diagnostics (5% resolution in electron density could be achieved), **wakefields of the chambers should be simulated**, pulse to pulse stability of the plasma has to be tested
- 2) I. Isaev: introduction, experimental data, different analysis methods, there are certain locations in the area of transition between coupler and gun and within the center of the solenoid, **the exact location of the lines should be checked in the exact drawing, data for two vacuum mirrors are taken and have to be analysed, also measurements at different gun power have been taken and to be analysed and this has to show that all the places of the “kick” are at the same z-location**, discussion on improved image analysis
- 3) Tino will order the new Karlsruher Nuklidkarte

Next steps:

| What is to be done ? | By whom ? | Until when? | Done on |
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Protocol prepared by
F. Stephan, 01.10.2015