

*DATE:* March 31, 2006

*TO:* RHIC E-Coolers

*FROM:* Ady Hershcovitch

*SUBJECT:* **Minutes of the March 31, 2006 Meeting**

# Memo

Present: Ilan Ben-Zvi, Xiangyun Chang, Alexei Fedotov, Harald Hahn, Ady Hershcovitch, Jorg Kewisch, Vladimir Litvinenko, Thomas Roser, Gang Wang.

Topics discussed: Collaboration Workshop, Fermilab Results

**Collaboration Workshop:** as a follow up on recommendations resulting from the last Machine Advisory Committee Meeting, a 3-day collaboration workshop is being set up for May 24-26, 2006 to expose the approach we are taking on non-magnetized cooling. The meeting and the feasibility studies presented should help in preparation for CD0 in the summer.

Ilan reported on the status of the meeting organization, which is focused on two main topics: non-magnetized cooling and the generation of low emittance, high-current (high brightness) CW electron beams. The latter includes topics on sources, superconducting electron gun, beam dynamics, emittance compensation etc. Paramount to the workshop is the narrow focus of the meeting that is limited to issues that have direct bearing on RHIC E-Cooling.

A substantial part of the program has been completed. More details about the meeting as well as the present status (with ongoing updates) of the meeting agenda can be found at [http://www.bnl.gov/cad/ecooling/Meetings/May\\_24\\_2006/WorkshopMay06.asp](http://www.bnl.gov/cad/ecooling/Meetings/May_24_2006/WorkshopMay06.asp). Presently, plans are to have parallel sessions of the meeting in a couple buildings (where large conference rooms are available). Comments were made that it would be preferable to hold all sessions in one building. Harald suggested holding the meeting in the Brookhaven Center.

**Fermilab Results:** Thomas reported attending a DOE Tevatron Operations Review last week, where electron beam cooling results were presented. In particular, Thomas showed a presentation by Lionel Prost from Fermilab who demonstrated excellent agreement between experiments and theory. A discussion ensued regarding the accuracy of the theory used in the comparison with experiments. Alexei claimed that the theory could have an uncertainty, which can be as high as 30%. Ilan contented that this level of accuracy is sufficient, and it enhances our confidence in simulating electron beam cooling in RHIC.