A.D. KRISCH: Papers, PAC, and FFE.
1. He said the Chao test PRL and CERN Courier article were both published. Mane first submitted a Comment on the PRL, to which it was unrelated. He then submitted a similar Comment on the 2007 deuteron strength PRST-AB, to which it may be related. After receiving two contradictory e-mails about it from PRST-AB, Krisch e-mailed the editors that he was willing to discuss the situation by telephone.

2. We updated the Solenoid strength PRL using Sivers’ draft abstract and the Gγ Note’s text. The Note was not written in everyone’s favorite style, but everyone seemed to agree that it was correct.

3. He submitted the Gγ Note along with: the Beam request, Kondratenko’s 10 papers, and an e-mail about other items.

4. He then resubmitted the Beam Request after Prasuhn e-mailed that now one could not request a run “after a MD week”; he also corrected 2.9 deleted lines in the submitted Gγ Note and simultaneously resubmitted it.

5. Lehrach said he made 15 paper copies of these two papers for the PAC; Krisch was surprised and suggested that he e-mail Goldenbaum about this. [NOTE: Goldenbaum responded that the PAC proposals are now paper-free.]

6. Prasuhn said detailed PAC presentations are usually given only for the new proposals, but he then agreed with Krisch that it would be wise to check with Ströher.

7. Krisch recently sent a revised Cost Statement to Ritman.; SPIN@COSY is supported by COSY’s FFE program.

D. PRASUHN: COSY 2008 Schedule.
1. He said nothing changed. Krisch noted that Leonova would discuss some new items for the May 08 run’s setup.

D. PRASUHN: COSY p-Polarization Status.
1. He said nothing new was done because there was no proton beam time. Gebel is setting up a 2nd LEP polarimeter. Krisch suggested discussing the low polarization problem during the May 08 SPIN@COSY run; Prasuhn agreed.

E.J. STEPHENSON: EDM Status.
1. He said they plan to submit a formal EDM proposal to BNL for its next PAC meeting.

2. They now plan to use 1.2 GeV/c deuterons at COSY. The carousel targets were made and successfully tested. The long target for the top of the beam pipe was made, but it may be too long for 1.2 GeV/c deuterons; also it may not allow the required vertical clearance for the SPIN@COSY run.

3. They will not install anything before the SPIN@COSY run; they plan to install the targets during the EDM run time. He plans to arrive at COSY on the Saturday before the PAC meeting and may join the EDDA calibration run.

M.A. LEONOVA: May 08 Deuteron Run Plan.
1. She distributed a 17-page draft Run plan for the 16-26 May 08 SPIN@COSY run. She said the setup will now need both bunched and unbunched beam setups and archives. Moreover, EDDA should be setup, tested and archived (with a C target) in both modes (full detector readout and then the fast polarimetry for the main run). The full detector readout mode will be used for the calibration at the end. Leonova and Morozov plan to join EDDA’s setup.

2. Krisch said EDDA’s electronics is old and may break easily; thus, we moved the calibration run to the end. Prasuhn agreed because Lorentz is not experienced in deuteron calibrations and only one CH2 target is available. He said Lorentz should be around for the switch to the calibration run on the run’s 2nd Sunday because he is the only on-site expert. Hinterberger said he asked Ulbrich to help Lorentz start the calibration run; he confirmed that this involves switching old cables.

3. Leonova said the P vs νy study is optional because it requires substantial setup time. Prasuhn said they could use an empty fork to adjust the beam for each νy and then archive COSY’s settings for each νy; this should take about a shift during the machine development. Krisch thanked Prasuhn and said the νy curve should now be done.

4. Leonova briefly discussed the normal resonance search and map studies and the ε vs. Vrf calibration.

5. She next discussed testing Kondratenko Crossing (KC) with an unbunched beam, and comparing it with the Fast Crossing Only (FCO) for two different ε values by varying different parameters: fKC, Δffast, Δfslow, and Δtslow. We still need predictions for P vs Δtslow and Δtslow. We plan to run with the maximum ε; after it is measured, Morozov will make new predictions. She noted that the ε variation part is optional because no structure is expected. She next said that similar studies are planned with a bunched beam, using the same resonance.

6. She asked everyone to check the Run plan’s parameters. Prasuhn confirmed that, if the e-cooling is optimized, then 20 s e-cooling should be long enough to cool the beam completely.

7. Leonova said she included prediction plots in the Run plan; Krisch and Chao said they are very useful. She said the KC shape parameters will be calculated in an excel file; Krisch suggested putting tables of them in the Run plan.

8. Hinterberger said 2 shifts may be too short for the calibration run; Rohdjéß had said at least 4 shifts are needed for good statistics and measuring the background. Krisch said our statistics could be low; moreover, it is better to start the run Sunday morning rather than Saturday night. Hinterberger will search for more information from Rohdjéß.

V.S. MOROZOV: Proton Data Reanalysis.
1. For proton polarization measurements, one records counts in EDDA’s 32 semi-rings; the YODA analysis numbers the semi-rings from 0 to 31. He can now extract the counts from the raw data files; but, one must match the semi-rings into 16 left/right pairs. YODA seems to pair them as 0-16, 1-17…15-31; but there seems to be a problem with this pairing. Thus, we also tried 0-31, 1-30…15-16 and 4-31, 5-30…17-18. We used these three pairing schemes to calculate polarizations for three different runs with logbook polarizations of about -22%, -80%, and +80%. 

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2. He plotted the effective analyzing power $A_y$ vs semi-ring pair number; the points for the four pairs circled in blue seem to yield the most sensible results, as will be discussed later.

3. He next plotted, vs. ring number, each ring polarization calculated by YODA and compared them with calculations by ROOT for the (0-16) and (0-31) pairings. The YODA and (0-16) ROOT calculations agreed almost exactly; the small differences were probably due to the slightly different time cuts and rounding-off errors. However, the polarization changed very significantly from pair to pair; this is a very serious problem. The (0-31) ROOT calculation was more consistent with a constant polarization, but gave a very different polarization value.

4. He next plotted the Counts/Cycle vs semi-ring number; it showed a very serious problem: YODA pairs semi-rings with very different count rates. The plot suggests a (4-31) pairing, which is symmetric around the empty channels.

5. He next plotted the polarizations for this pairing; the 4 pairs of points that seem reasonable are circled in blue. He noted that the polarization for the (4-31) pairing was almost a factor of 2 higher than for the (0-16) pairing.

6. He next plotted the polarizations calculated using the three different pairings for the runs with $-80\%$ and $+80\%$ logbook polarizations. For the (0-31) and (4-31) pairings, the absolute values of the average polarizations were greater than 1. Krisch noted that (4-31) gave polarization values almost exactly a factor of 2 higher than (0-16).

7. Krisch asked about the correct pairing. Hinterberger replied that there was a specific fixed pairing scheme and asked why different pairings were tested. Krisch said the (0-16) pairing, which YODA seems to use, matches semi-rings with very different count rates; moreover, the polarization changes from pair to pair. He suggested that the semi-rings may be paired in a wrong way, perhaps due to some switched cables; or there may be problems with the effective analyzing powers. He noted that the Ohlsen asymmetry formula eliminates many such systematic errors.

8. Hinterberger said that, in the fast polarimetery mode, each semi-ring at a small forward-scattering angle is matched with a semi-ring at a large back-scattering angle; a coincidence between a forward- and a back-scattered particle is detected and counted by a fast scalar. Krisch agreed that the data being discussed were all coincidence events.

9. Hinterberger suggested consulting Weiβ’ thesis and Rohdeß’ notes, which might be on Bonn’s website; he offered to e-mail them to Krisch and Morozov. He said if the problem is misconnected cables, then it should be fixed.

10. Krisch asked Prasuhn to ensure that Lorentz gets Morozov’s presentation; Prasuhn agreed.


Skipped [NOTE: He was awaiting our call, but we had the wrong cell-phone number; 757-927-7988 is correct.]

A.U. LUCCIO: Resonance Strength Simulation.

Skipped.

V.S. MOROZOV: Solenoid Strength PRL.

1. The paper was updated with: the abstract prepared by Sivers; and the introduction, discussion of Eqs. (4) & (5) and conclusions using the Gy Νote’s text. Kondratenko agreed to be an author on the paper.

2. Morozov read the abstract; Krisch said it should be shortened to 7 lines; no one objected.

3. Morozov read the two introductory paragraphs. Chao said nothing was wrong but he was not comfortable with the paper’s tone; he would suggest a small number of corrections to improve it. [NOTE: He sent the corrections.]

4. Courant said Eq. (5) was known to be wrong and comparing it with the data is useless. Krisch pointed out that the paper states that the dipole strength “was thought to be given by” Eq. (5). Sivers strongly disagreed with Courant that Eq. (5) has been “always” known to be wrong. Krisch noted that this is an experimental paper, which demonstrates that Eq. (4) agrees with data, but Eq. (5) does not agree with data.

5. Krisch said the paper must be shortened to 4 pages; he asked Morozov to use the compact format of the author list.

6. Morozov read the paragraph containing Eqs. (4) and (5). Sivers suggested removing the “may” in the statement that coherent oscillations may lead to additional spin effects; Courant and Krisch agreed.

7. Morozov discussed Fig. 1 (P vs. $\varepsilon_{\text{FS}}$); it shows the reduction of the beam’s $\Delta p/p$ by the e-cooling. Krisch suggested giving the fit results only in all figure captions and removing most of them from the text to shorten the paper.

8. Figure 2 (P vs $\Delta t$) explained how $\varepsilon_{\text{FS}}$ was measured; Krisch suggested eliminating Fig. 2 and instead giving a reference; no one objected. [NOTE: We may instead remove Fig. 1, most of which was published in the new PRL.]

9. Krisch said Fig. 3 ($\varepsilon_{\text{FS}}$ vs $\Delta t$) seems the most important result because it clearly shows that the rf-solenoid data agrees with Eq. (4) while the rf-dipole data disagrees strongly with Eq. (5).

10. Morozov said Fig. 4 ($\varepsilon_{\text{FS}}$ vs $\nu_{\text{FS}}$) showed that the solenoid data is flat while the dipole data have a peak; it also shows Kondratenko’s calculation. After discussing eliminating the semi-empirical hyperbola, it was decided to leave it.

11. Courant asked about the missing solid lines described in Fig. 3 and 4 captions; Krisch replied they were the line pieces at the level of 1; Krisch apologized and agreed that this must be clarified.

12. Sivers suggested stating more clearly that the error on $\varepsilon_{\text{FS}}/\varepsilon_{\text{th}}$ includes a 5% systematic uncertainty in $\text{Bdl}$. kr

13. Morozov read the 1\textsuperscript{st} of the two conclusion paragraphs; Krisch suggested removing the 2\textsuperscript{nd} mention of Ref. [11] and splitting the paragraph in two at “Moreover…”; no one objected. Morozov read the 2\textsuperscript{nd} paragraph.

14. Krisch asked if a correct simple analytic version of Eq. (5) might ever exist. Chao replied that an accurate prediction could be obtained by a numerical calculation, but the strength would probably never be expressed in a simple form similar to Eq. (5), because it would always depend on the details of the ring. Kondratenko said the strength could be expressed in a compact form using the response function, but the response function must be calculated by integrating over the whole ring. Krisch then suggested removing the word analytic; everyone agreed.

15. Courant agreed to be an author on the paper if he agrees with it after Chao’s and Sivers’ corrections. [NOTE: Orlov and Derbenev later agreed with the same condition.]

**ROUNDTABLE:**

1. The next SPIN@COSY Teleconference was tentatively scheduled for **Thursday, 15 May 2008 at 16:30 German time** or 10:30 Michigan time, after many people arrive at COSY for the 16-26 May 2008 run.