

First Observation of Ionization Cooling: referees meeting #4: 29Feb19

Present: F.Drielsma, K.Long, D.Neuffer, C.Rogers

Apologies: S.Boyd

Notes:

1. Introduction: KL

This meeting is the fourth referees meeting for the amplitude evolution paper. The goal will be to review progress and to agree the next steps.

2. Notes on previous meeting: All

Notes accepted. Action items will be covered in the presentations.

2. Update on analysis: CR/FD

CR presented the slides that he had prepared for the CM as all but KL and CR were not at the CM.

Points noted:

- Evolution of amplitude (slide 5):
 - Evolution of amplitude equation derived by FD. Will be added to the MICE Note and reviewed by DN.
- Magnetic-field plot:
 - In discussion of figure 1 it was agreed that the authors would consider plotting B_z or labelling IB_{total} .
- Results plots:
 - The updated plots were discussed. Further discussion of presentation was postponed to the next meeting.
 - It was also agreed to postpone discussion of amplitude evolution plot (slide 17) until next version.
- Table to demonstrate significance (slide 15):
 - Agree to send tables of numbers based on slide 10 to John Cobb; raw and corrected numbers will be provided.
- CC systematic:
 - Agree to make a single shift of -3% to the US field as the systematic error.
 - Do not make it the central value as it will mean that Hall probe versus predicted field will not agree.
 - It was suggested that one of the tracker Hall probes should be tested in a reference magnet. Also, need to consider updating the Kalman fit to include integration of the field. These items will be implemented for future papers.
 - It was agreed that use of the GRID should be considered to generate sufficient MC events in both the 'central' and -3% configurations.

3. Discussion of next steps: All

It was agreed that there had been significant progress since the last meeting. Further, we agreed:

- Referees meets will be held every 4 weeks to review progress and provide advice. On the assumption that SB will not go to the T2K CM, we agreed that the next meeting would be **25Mar19; 16:00 GMT**.

4. Summary and actions: KL

Summary and action items noted above.

5. AOB

All items noted above.

