

Hyperon Meeting, February 25th 2015

Participants: Albrecht Gillitzer (Jülich), André Goerres (Jülich), Dariusch Deermann (Jülich), Felice Iazzi (Torino), Gianluigi Boca (Pavia), Lia Lavezzi (Torino), Elisabetta Prencipe (Jülich), Solmaz Vejdani (Groningen), Stefano Spataro (Torino), Karin Schönning (Uppsala)

1. Talk by André Goerres

André gave a status report on his simulations of the $\Xi^*(1690)\Xi\text{bar}$ production. Since this has never been studied in $p\text{bar } p$ collision, nothing is known about the angular distribution of the cascades.

Simulations were therefore performed both using an isotropic angular distribution and a parameterisation where the Ξbar is slightly forward peaking.

The simulations were performed at the J/Ψ mass since a lot of data will be collected at this energy. The contribution from $J/\Psi \rightarrow \Xi^*(1690)\Xi\text{bar}$ is expected to be negligible compared to direct non-resonant production. Hits in different detectors were studied for different cases depending on the decay vertex position of the Λbar from the Ξbar decay.

[https://panda-](https://panda-wiki.gsi.de/foswiki/pub/Physics/Baryons/Meeting25Feb2015/AGoerres_Cascade_Status.pdf)

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2. Talk by Karin Schönning

Karin presented simulation results on $p\text{bar } p \rightarrow \Lambda\text{bar}\Lambda$ at 4 GeV/c and 1.64 GeV/c. At 4 GeV/c there efficiency was compared for two cases: 1) ideal pattern recognition in the Target Spectrometer and 2) realistic pattern recognition in the Target Spectrometer. The ideal case is about a factor of 2 better than the realistic case, but this is not a good measure of the performance of the realistic PR since every event has one or two tracks that only traverses the FTS (where the PR is ideal in both cases).

Running with half solenoid field does not improve the total efficiency.

At 1.64 GeV/c, ideal and realistic PR was compared for event when all tracks go to the TS. Ideal PR gives about 3 times better efficiency than realistic.

Finally, MVD and FTS hits was studied at both beam momenta, in order to get an idea of which detectors that will be needed for time reference and for PR. These studies will be repeated including also GEMs.

https://panda-wiki.gsi.de/foswiki/pub/Physics/Baryons/Meeting25Feb2015/schoenning_150225.pdf

3. The Wiki page

André Goerres volunteered to make the Baryon/Hyperon Wiki page more structured and easy to read. This is already done when these minutes are written.

4. Meeting hours

From now on the regular meeting hour will be Tuesdays at 10 as we said originally. We have tried to be flexible in order to meet peoples constraints but it has not worked out very well. After the next meeting, which will be at the Collaboration Meeting, we will have our meetings every three weeks on Tuesdays.