

Thomas presented the simple model analysis on the precise horizontal polarization profile data taken recently for both 10% and 15% cold snake. The results shows that the model can match the experiment results if the horizontal emittance is 5.4π instead of 15π . The profile data themselves show that the effect from the horizontal resonances are small, which suggests that fully correct them does not give a large gain of polarization.

Fanglei presented the analysis of the vertical polarization profile measurements taken recently over two months with 10% and 15% cold snake. She assumed two weak vertical resonances at lower energies where the vertical tune is not in the spin tune gap yet. Thomas pointed out that the fitting should be used to extract an effective resonance strength for the whole energy ramp. Except one questionable data set taken on April 7 with 10% cold snake, the rest four show the polarization transmission efficiency is about 95% on average for both snake configurations. Haixin pointed out that the recent precise measurements for both cold snake configuration should be used for this analysis. Vladimir and Dejan questioned about the possible geometry asymmetry during the target scan and suggested to move beam with local orbit bump instead of moving targets. Thomas responded that the alternative spin sign (+,-) and left- right detectors should eliminate this asymmetry to the first order. The target movement during the target scan (a few mm) is relatively small comparing to the large distance (25cm) between detectors and the target.

One can estimate the polarization loss from both vertical and horizontal profiles. It should be less than 10% total. Given 82% input polarization and less than 4% loss due to spin mspin mismatch, we expect 70% polarization. Our averaged numbers are around 65%. The discussion then went on to discuss what should be done in next three weeks to understand the polarization loss we see. Haixin will give a summary of the list later.

Haixin