

Fanglei updated her progress on SPINK tracking. It turned out that the AGS dipole magnets in the lattice she used was not cut into four pieces. And we know the spin tracking part won't be correct without the cut. Using the correct lattice, the resonance strength calculated from SPINK agreed with DEPOL for $0+\nu$ resonance. The difference for the tracking with and without script remains for higher energy (not so profound at $0 + \nu$). It is strange that the first turn spin components depend on what end energy she chose. Thomas suggest to check the spin closed orbit part.

Woody presented the Vertical quad current vs time for a realistic AGS ramp. Since we are going to add twelve polarized proton quads in the vertical string, the voltage required for the same power supply would be higher than last run, 180V for 700A current, which exceeds the limit of 170V. If using Nick's number from MAD calculation, for both tunes close to 9, we need close to 700A in the horizontal power supply but 625A for the vertical power supply. For this solution, the voltage would stay below 170V. With the ongoing modification on the horizontal power supply, the 700A should be reached as we did last year for the vertical string. Leif reported that there is an consistent solution for the polarity of polarized proton quads. If polarity change is needed, about half hour per magnet is needed, according to Ioannis. Haixin reported that the water cooling work is progressing but slow. Joe already put overtime on this job. With the two weeks delay of starting time for RHIC operation, Ioannis should have his time to test these magnets.

Thomas asked the question if we can use the solenoidal partial snake magnet in I10 to compensate any coupling due to the helical snakes. Since the two tunes are very close in this new operation scheme, the coupling correction has to be done much better than the past. Otherwise, the strength of the coupling resonance strength could be as strong as the nearby vertical one and put horizontal tune near 8.95 won't be enough. From past experience, the existing AGS skew quads are not strong enough to do the job, and another solenoid would be ideal. We do have a build-in solenoid in the cold snake already, but add another knob is better, as we have the warm helical partial snake without solenoid built in. The solenoid snake was not powered bipolar in the past but probably needs to be bipolar for this new scheme. We need to estimate the current for the required new power supply. The integrated field from the cold snake solenoid can give us some guidance. Steve raised the question on the horizontal chromaticity. As we put the horizontal tune also close to integer, the horizontal chromaticity should be close to zero, to reduce the tune spread.

Haixin