Feedback from ACTS workshop

➢ I presented an overview ([here](#)) of ePIC's efforts to use ACTS as our main track finding and fitting and primary vertexing software.

➢ Overall, the ACTS developers are very happy that we are using their software to great effect.

➢ A few specific points:

1. We requested some additional documentation on the available seed-finder parameters. Joe – during the sPHENIX talk – mentioned it would be good to be able to see the following: if a specific spacepoint triplet set fails to form a seed, where in the seed finder/filter does the failure happen.

2. It was suggested we check the performance of using the seed confirmation, which will allow us to avoid running the CKF on certain duplicate seeds.

3. We have been using the *ImpactPointEstimator* to determine the track parameters 'at' the primary vertex. This class was intended more for internal use in other ACTS algorithms. The developers plan to add a 'projectToPoint' class that we can use instead.

4. The developers are interested in seeing the results when we include more realistic collider environment effects – such as electronic noise, beam-induced backgrounds and time frames.

5. Some discussion on how we plan to use the fast tracking detector layers to reject backgrounds / sort tracks into physics events. Do we plan to assign a 'time stamp' to each track? Or do we want to use the time in the chi-square minimization?

6. Can we develop a setup where ACTS accesses our workflows to check the impact on ePIC whenever there is an ACTS upgrade?