



# PID lookup tables – ACs perspective

Rosi Reed (Lehigh) - Salvatore Fazio (Calabria)

- Topic Discussed with our PWG conveners at the Analysis coord. meeting on January 26<sup>th</sup>
  - Realistic PID simulation crucial for TDR-physics-chapter & related physics paper
  - We communicated the Challenging TDR timeline + expectation of having full PID reconstruction in our common software being unrealistic in the short term
  - PWG conveners agree on the **contingency plan of using lookup tables**
- Format of lookup tables has been discussed (purity vs efficiency vs ...)
  - The most realistic format to mimic detector effects on PID would be a matrix showing the **probability for a particle to be reconstructed into something else**:
    - $(i\_generated\_ID, j\_reconstructed\_ID, prob\_ij)$  - describing probability of particle  $i$  to be reconstructed as particle  $j$
- Timelines are important
  - Lookup tables would be ready by next software campaign?
  - Timeline for a full PID reconstruction? Especially relevant if final TDR realigns with a new CD3 timeline
- Dedicated discussion on Feb 5<sup>th</sup> - Analysis TDR Kick off Workshop: <https://indico.bnl.gov/event/21775/>
  - We **need a speaker from this community** to drive a detailed discussion