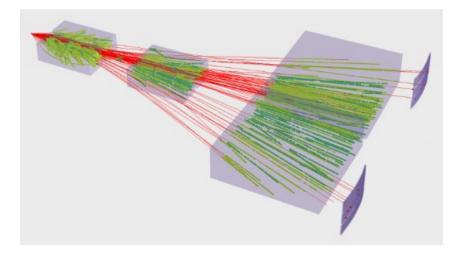
## NA61/SHINE

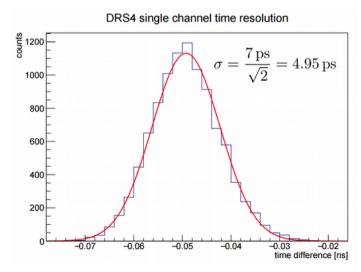
## Data taking for Fermilab neutrino beam lines in NA61/SHINE August 2<sup>nd</sup> - September 6<sup>th</sup> 2017



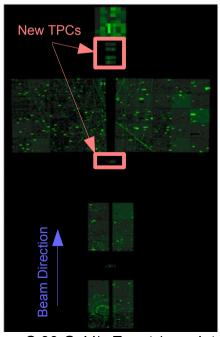


## **USNA61** Data Taking Period

- Six reactions recorded over five-week period
- New detectors integrated
  - Forward TPCs cover previously non-sensitive forward region of detector
  - Forward TOF readout with new DRS4: Intrinsic single-channel resolution of 5 picoseconds
- Achieved full phase space coverage expected for neutrino runs
- Thank you for providing us with the beams and support to make this physics program possible!



Reaction	Number of events
π <sup>+</sup> + Al 60 GeV/c	2.52 x 10 <sup>6</sup>
π <sup>+</sup> + C 30 GeV/c	2.19 x 10 <sup>6</sup>
π <sup>-</sup> + C 60 GeV/c	3.57 x 10 <sup>6</sup>
p + C 120 GeV/c	2.57 x 10 <sup>6</sup>
p + Be 120 GeV/c	3.97 x 10 <sup>6</sup>
p + C 90 GeV/c	3.12 x 10 <sup>6</sup>







New time projection chambers

