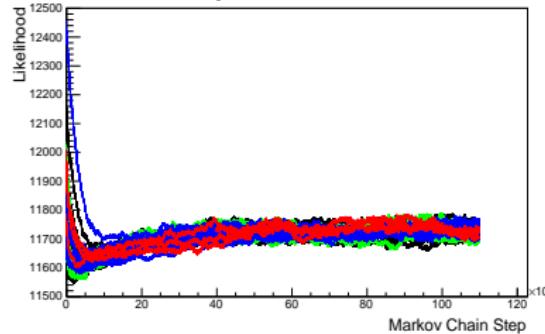
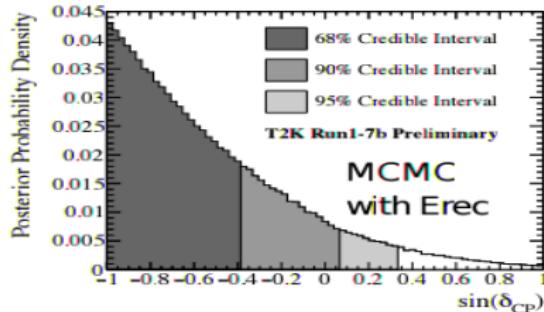


## MaCh3 and HPTPC

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## MaCh3 - (Ma)rkov (Ch)ain 3 flavour

- ▶ MaCh3 is one of T2K's oscillation fitters
  - We analyse ND280 and SK data to constrain PMNS parameters
  - Use Bayesian methods and Markov Chain Monte Carlo
- ▶ Latest results show exclusion of CP conservation at nearly 90% confidence and some tension with the PMNS model
- ▶ Exciting times ahead with lots more data expected



## High Pressure TPC (HPTPC)

- ▶ TPC's allow very good particle ID and low momentum thresholds
  - Increases hadron information available for analysis
- ▶ Problem is that gas isn't very dense so interaction rate is low
- ▶ Using high pressure gas increases density and also interaction rate
- ▶ HPTPC demonstrator being built in London that will be tested in beams at CERN

