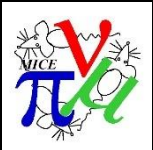


# MAUS Status

A. Dobbs, Imperial College, CM44

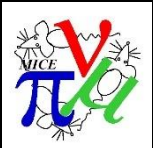
# Contents

- Current release
- Next releases
- Detectors
- Future plans
- Publications



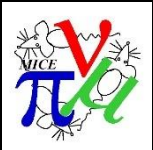
# Current Release

- MAUS release 2.1.0
- Download: <http://heplnv152.pp.rl.ac.uk/maus/>
- Highlights:
  - Tracker geometry bugs all fixed
  - Tracker straight fits optimised
  - EMR speed improvements
  - Global tracking in
  - Upgraded unpacker
- Issues:
  - Beamline polarity incorrect
  - Global track propagation real data bug



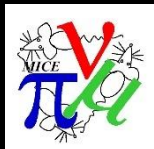
# Next Releases (2.2.0, 2.3.0)

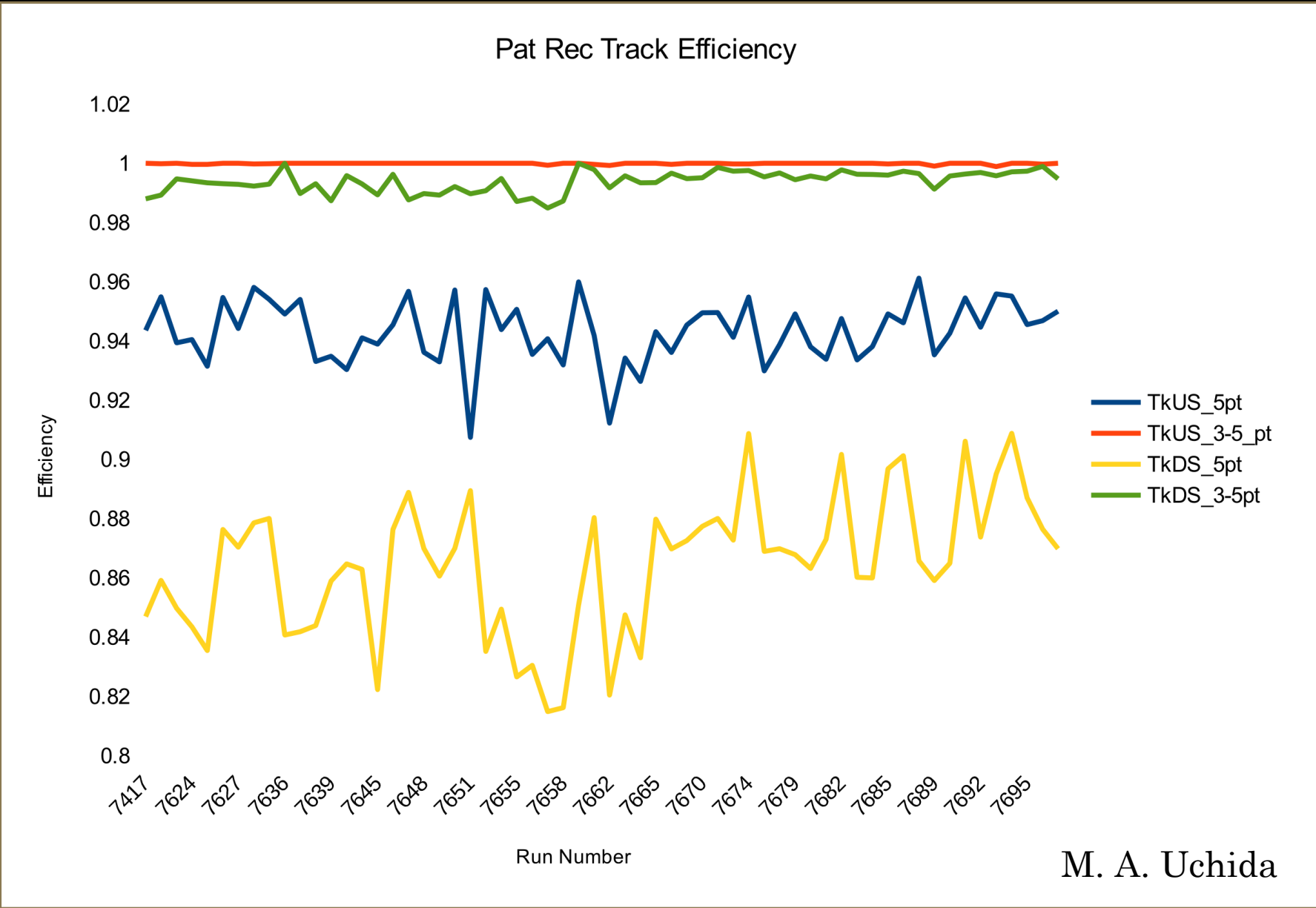
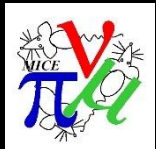
- Upgrade to ROOT6
  - Allows MAUS compatibility with latest Scientific Linux release
- Add Event Viewer as third party library
- New Online Reconstruction framework (C++ only)
- Fix Global tracking RK4 propagation bug
- Fix last tracker Kalman fit issues
- Improve tracker pattern recognition helical tracking efficiency



# Detectors and Reconstruction

- CKOV – functional
  - Finish last few Kalman filter items
  - See Tracker talks
- KL – Done
- TOF – Done
  - Trigger MC still to come
  - See the TOF talk (next door...)
- EMR – Done
  - Big speed up in latest release
  - See the EMR talk
- Tracker – last few things
  - Geometry bugs all fixed now
  - Optimise pattern recognition for real data
- Global tracking – first full working version now in release
  - ... except for bug in the tracking for real data
  - Purity and efficiency studies underway
  - See the Global talks
- Online reconstruction
  - More tracker plots in
  - New infrastructure nearly complete
  - See the Online Reconstruction talk

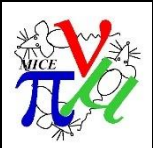




M. A. Uchida

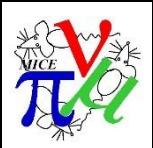
# Future Studies

- End-to-end simulation of beamline [Optics Review]
- Assess impact of imperfections on emittance measurement and scattering angle [Optics Review]
- Assess using MC effect of losing M1D on matching, transmission and emittance measurement [Optics Review]
- Full tracker efficiency using MC (done for straight pat rec using data)
- Global tracking purity and efficiency



# Future Plans

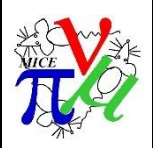
- Event viewer into online reconstruction
- Speed up MC
- Simulate the trigger
- Tracker pattern recognition enhancements
- Multithread option
- Switch version control to Git?





# Publications

- EMR – published
- Tracker – almost ready for arXiv
- General MAUS



# Questions

