From Analyses To Papers

C. Rogers, ISIS Intense Beams Group
Rutherford Appleton Laboratory

Reminder – Publication plan

| Paper	Contact	Comments/Aims
Multiple Coulomb Scattering in lithium hydride	John Nugent	Now on best effort basis
Performance of the MICE diagnostic systems	Paolo Franchini	KL comments received – awaiting new draft
Phase space evolution in flip mode	Paul Jurj	Full analysis chain in place
Phase space evolution in solenoid mode	Tom Lord	Looking at low pt hole
Phase space evolution with the wedge	Craig Brown	Understand effects of density estimators
Multiple coulomb scattering in liquid hydrogen	Gavriil Ch	Deal with alignment issues; move to convolution analysis
Multiple coulomb scattering with fields on	Alan Young	Deal with alignment issues; move to convolution analysis

Scattering analysis

- LiH scattering held up by trivial bugs
  - No additional support to help John Nugent
  - John is working on "best effort" basis
- LH2 scattering
  - Validation of detector performance (MC vs data)
  - Preparing for PID routines

Scattering analysis
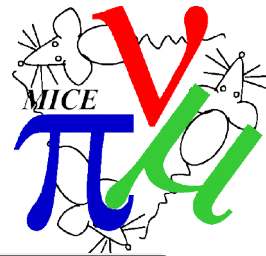
	LiH field-on	LH2 Field-off	Field-on
Beam selection	green	green	green
TOF Momentum Reconstruction	green	green	green
PID	green	red	green
Convolution analysis	green	red	red
Deconvolution analysis	green	red	red
Bias due to inefficiency/geometrical acceptance	green	red	red
Validation/analysis of all data sets and MC	green	red	red
Systematic uncertainty analysis	green	red	red
Time-of-Flight and Momentum	green	red	red
Positional Alignment of trackers	green	red	red
Fiducial selection	green	red	red
TOF uncertainty	green	red	red
Rotational alignment of trackers	green	red	red
LH2 curvature	grey	red	red
Pion Contamination	green	red	red
Headline plots finalised	green	red	red
MICE Note written	orange	red	red
Draft Paper written	red	red	red
Draft Paper through internal review	red	red	red
Draft Paper through journal review (publication)	red	red	red

4

Emittance analyses
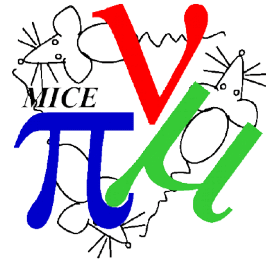
	Solenoid emittance evolution	Flip-mode emittance evolution	6D emittance evolution
Beam selection	🟩	🟩	🟩
Beam resampling	🟥	🟩	🟥
Amplitude/emittance/density calculation	🟩	🟩	🟩
Bias due to resolution/inefficiency (and correction)	🟥	🟥	🟥
Validation/analysis of all data sets			
Reconstruction uncertainty analysis	🟥	🟥	🟥
Tracker density			
Tracker alignment			
Tracker field			
TOF uncertainty			
Model uncertainty analysis			
Beam alignment			
Fields (SS and FC)			
Absorber			
Headline plots finalised			
MICE Note written	🟥	🟥	🟥
Draft Paper written			
Draft Paper through internal review			
Draft Paper through journal review (publication)			

5