Analysis topics and service tasks

- **Many new preliminary results shown at LCWA**
  - **Need to finalise and publish**
- **Attempt to identify technical tasks essential for each analysis**
  - **…and people who can do these**
- **Link tasks with particular publications, and look for keen volunteers to take responsibility for each**
- **List from discussions between Cristina, Erika, David, Niels, NKW.**
- **Separated into common, AHCAL-specific and SiW ECAL-specific**
- **See https://twiki.cern.ch/twiki/bin/view/CALICE/SoftwareAnalysisOrganisation**

Paper	Essential Service Tasks	Responsible
All analyses	Mass production of reco. files	Alexander Kaplan (Heidelberg)
	Provide processor to mask dead cells	Niels Meyer (to be confirmed)
	Maintain list of dead cells in database	AHCAL volunteer, SiW ECAL volunteer
PFA (ECAL+HCAL)	Adaptation of Pandora to CALICE	
	Geometry interface (GEAR!)	
	Up-to-date reconstructed files	

AHCAL-specific - I

Paper	Essential Service Tasks	Responsible
Muon response in HCAL	mip calibration 06/07/08/09	Boris Bulanek (Prague)
	Temperature slopes	Boris Bulanek (Prague)
	Muon finder processor	Lars Weuste (MPI)
Electron response in HCAL 07	Saturation / temperature correction	Sergey Morozov (DESY)
	Sensible averages / defaults	Sergey Morozov (DESY)
	Tracking for position studies	
Validation of digitization 07	Digitization chain / single vs common factors	Katja Seidel (MPI)
	Clean-up of digitization code	Katja Seidel (MPI)
Hadron shower profiles 07	MC production	Shaojun Lu (MPI)
	Tools for auto digitization + MC reco	
	Alignment 07	

AHCAL-specific - II

Paper	Essential Service Tasks	Responsible
AHCAL single particle performance	Light x-talk correction (Matrix inversion)	
	Dead / bad channel correction	
	Tool to link digitized hits, MC hits, and MC particles	
Shower decomposition 07	Geometry (GEAR?)	
Showers separation 07	Alignment 07	
Pion/proton 07	Trigger issues 07 (08/09)	Marina Chadeyeva (ITEP)
Low energy pions 08/09	Alignment 08	Nils Feege (DESY)
	Calibration 08/09	Nils Feege (DESY)
	Cerenkov pressure -> MC	
PFA (ECAL + HCAL)	See ECAL list	
Combined single particle performance (ECAL+HCAL+TCMT)	As AHCAL + reconstructed files for all.	

SiW ECAL-specific

Paper	Essential Service Tasks	Responsible
Shower profiles 06	Covered	
Position/angular resolution 06	Covered	
Uniformity / 07 analysis	CERN beam energy in DB;	
	Alignment '07	
	MC Production (incl. determination of beam parameters.)	
Rotated detector + ILD studies	alignment 07	
Hadron analysis 2007	Covered	
Hadron analysis 2007	Treatment of dead cells	
All analyses	Provide processor to mask dead cells (according to a list)	
	Maintain list of dead cells in database for dead cells	
Hadron analysis 2008	Reconstruction using '08 calib. Mokka Simulation '08; MC Production (incl. determination of beam parameters.)	
CERN/FNAL comparison 06/07/08 (including plots for ScECAL comparison and data at lower energies)	Alignment '08	
	Reconstruction using '08 calib.	
	All beam energies in DB	
	Mokka simulation '08	