

## 1 Day1 morning - Welcome: Ph Salome, A.C Edge

Practical Issues (P Salome)

Current status of the program (A. Edge)

## 2 Day 1 afternoon - Session 1: Raymond Oonk - Spectroscopy paper

P = presentation D = discussion

- (1) Current observational PACS spectroscopy results (P)
  - line fluxes and extent
  - line velocity and width
- (2) What observations are still to come (P)
  - short overview of what data has not arrived yet
- (3) Reduction, Calibration and Errors (P+D)
  - current reduction procedures and possible improvements
  - current accuracy in calibration, is this sufficient for our goals?
  - how do we carry out a proper error analysis taking into account various sources of noise and uncertainty?
- (4) Herschel line modelling (P+D) (connects to the Ferland paper)
  - deriving (n,T,U) for the cold gas and excitation model dependencies
  - quantifying CII due to dense and due to diffuse gas via NII
  - deriving the cold gas mass
- (5) Comparing the Herschel lines to non-herschel data (P+D)
  - Flux correlations of the Herschel with:
    - (a) optical lines (H-alpha, OI, OII, OIII)
    - (b) nir lines and spitzer lines (H2, NeII, NeIII)
    - (c) mm-lines (CO and other tracers)
    - (d) continuum measurements (L(X), L(radio), L(FIR), L(V))
  - physical interpretation of these (non-)correlations.
  - discuss single excitation model for X-ray,HII,H2,Herschel gas phases, this connects to the Ferland paper.
  - discuss velocity/width correlation between various gas phases, this connects to the Russell paper.

- (6) Gas to Dust mass (D) (connects to the Egami paper)
  - cold herchel gas; extended or point-source?
  - herchel FIR/dust; extended or point-source?
  - how can we derive a useful dust mass, i.e. what SED/dust models?
  - how do we obtain a useful gas/dust measurement?
  
- (7) Pseudo continuum from Herschel PACS spectroscopy (D)
  - can we obtain reliable continuum measurements from the off-band for the line observations?

### **3 Day2 morning - Session 2: Rupal Mittal - NGC1275 and Centaurus spectral maps**

### **4 Day2 afternoon - Session 3: Helen Russel - Velocity Structure**

### **5 Day3 morning - 4: Eiichi Egami - Photometric analysis**

Spitzer BCG Survey + BCG Observations in the Herschel Lensing Survey

I'll present the results from the following three IR/submm BCG surveys:

- (1) Spitzer MIPS/24um snapshot survey of ~100 BCGs in X-ray-luminous clusters
- (2) Spitzer IRS spectroscopic follow-up of ~30 IR-bright BCGs (selected from (1))
- (3) Herschel PACS/SPIRE photometric survey of ~40 BCGs in X-ray-luminous clusters

### **6 Day3 afternoon - Conclusions and perspectives**

Description of next proposals/Some words about mm-submm molecular observations and ALMA ?

## 7 More topics

M. Donahue: UV work on cool core clusters (XMM OM, GALEX, HST)