

Report on Group Meeting re: Design Evaluation based on Science Requirements

2000 August SKA Work-Shop at Jodrell Bank

D. C. Backer, Correspondent

The discussions held were not well informed by past owing to heterogeneous group assembled with different degrees of involvement in past discussions. For example, notes science requirements from the Dwingeloo meeting would have been useful. The SKA organization needs to organize itself to maintain ``institutional'' memory.

We identified two main areas requiring attention:

[1] ADVANCE DISCUSSION OF SCIENTIFIC NECESSITY OF SKA

- identify specific SKA scientific goals as (A) unique; (B) necessary as complement; or (C) either/or with respect to radio astronomical approach vs planned or likely capability at higher frequencies.
- refine the requirements; e.g., is 1 square degree field of view mainly for high-z Hydrogen studies? Does the 0.1'' resolution need to be simultaneous with 1 square degree?
- define more critical case studies for simulation purposes such as has been done with faint continuum sky by Hopkins and others.
- commission a Scientific Advisory Committee.
- engage theoretical community to sharpen questions where possible such as has been done by Madau, Gnedin and others with Hydrogen reionization. [Note the remarks in McKee-Taylor report about support for theory associated with instruments.]

[2] OUTREACH

- SKA/NGST/ALMA/ELT October 2001 meeting is important to shake out areas of uniqueness and complementarity.
- use opportunity of Berkeley meeting to promote science discussion.
- place Wilkinson/Diamond, Ekers, & Butcher materials from pep talks on web for all to access.
- register ``ska'' website.
- sponsor topical science studies/workshops; e.g., at USNC URSI, AAS, and other regional meetings.
- assemble a concept(s) paper.