

Beam Steering Mirror Wish List for MPIA.

Following our meeting in Heidelberg it has been agreed that the SPIRE and PACS project teams can mutually benefit from collaboration in the following manner. The final agreement to proceed, however, will be the responsibility of the respective PI's.

PACS

The optical design of the PACS instrument requires filters to act as beam splitters. The team is currently in the process of drawing up a list of the type of filters required and they acknowledge that they require the assistance of Peter Ade's group in designing and manufacturing these filters.

SPIRE

The design of the Beam Steering Mirror (BSM) for SPIRE is based very much on the MPIA design for the ISOPHOT chopper. In exchange for the PACS filters therefore, MPIA are prepared to offer advice on the design of the BSM, guidance on the design of the electronics and procurement of space qualified hardware e.g. flex pivots.

At the end of the meeting it was agreed that the PACS team would compile a provisional list of the filters they will require and the SPIRE team would draw up a list of information and parts required for the BSM.

The completion date for the compilation of these lists was set at mid June. There now follows the list of SPIRE requirements.

Information on ISOPHOT chopper

1. The detailed design of the flex pivot
2. The diameter and material of the wire used in the drive coils
3. Test results on power consumption of the device at various frequencies
4. Parts list including materials
5. Description and design of position sensors
6. Details of drive coils
7. Details of magnets
8. Details of electronics design
9. Continued informal communication between Fraser Morrison and Ulrich Groezinger on design issues

Procurement of Parts (Definite to be ordered as soon as possible)

24 flex pivots

Procurement of Parts (Possible)

24 Position Sensors

48 Drive Coils

24 Drive Magnets

G. Fraser Morrison
16th June 1999