

Baseline Science Working Groups

Guidelines

Long-term Goal

- ◆ Science topic working groups are made to create science cases for showcase/early science from ASTROSAT
- ◆ Each STWG can have several sub-topics.
- ◆ Each STWG will have a lead who will co-ordinate the activities of the respective STWG and report to ASTROSAT SWG
- ◆ It is recommended that each science team member be a member of max. 2 STWGs

Goals of STWGs

- ◆ For each sub topic you are requested to come up with science case.
- ◆ The science case proposal to have the following:
 - ◆ Science justification for science, why it should be done as baseline science, and advantages of observing with ASTROSAT
 - ◆ Describe specific observation
 - ◆ Technical feasibility
 - ◆ Specify prerequisites from instruments (e.g. Background modeling, mag. calibration etc.)

Goals of STWGs

- ◆ The science case proposal to have the following (contd):
 - ◆ Observing time required
 - ◆ Status and availability of the tools for observation
 - ◆ Decide who leads the proposal
 - ◆ Ensure availability of observing time
 - ◆ Defend this case for observing
 - ◆ Ensure completion of analysis and deriving results in the specified time after observations

Observation time

- ◆ Can use any instrument as lead instrument
- ◆ The observation time comes from
 - ◆ a) from the primary instrument GT time
 - ◆ b) from the instrument time of multiple instruments
 - ◆ c) the respective instrument GT to which the members belong
- ◆ This to be discussed with instrument teams

Presentation

- ◆ In 3 months' time there will be a presentation of all the science cases (including those which are for field objects) proposed. May-beg. Intent; May end - presentations; April- a mid-term report at SWG
- ◆ Combining multiple proposals for common observations may have to be done
- ◆ Prioritise based preferably on consensus
- ◆ Those cases which are not approved for baseline may be recommended for next round of GT.

Prerequisites

- ◆ All instrument teams will provide necessary files like Arf, Rmf, calibration, background models etc. by March, 28, 2014.
- ◆ Update handbook by March 21, 2014 with necessary details.
- ◆ Any further update will be documented and circulated among all science team members
- ◆ Respective science teams to decide how much GT time to set aside for baseline proposals and inform SWG.

Strengths and Advantages

- ◆ Involves as many science team members in coming up with ideas for observations to enhance science
- ◆ Involves many members in the activity of generating tools, and calibration of instruments if necessary.

- ◆ Formation of groups (with leads)
 - ◆ AGNs -- K. P Singh
 - ◆ Black Hole x-ray binaries - Santosh Vadawale
 - ◆ Neutron Star X-ray binaries -- B. Paul
 - ◆ Isolated neutron stars.-- Dipankar B
 - ◆ CVs -- S Seetha
 - ◆ Stars and Clusters (including WDs) - Annapurni
 - ◆ ISM, SFRs, SNRs – S. K. Ghosh
 - ◆ Deep Survey --- S. N. Tandon
 - ◆ Imaging of galaxies --- Pat Cote
 - ◆ Clusters of galaxies – Gordon Stewart