Agenda: INTEGRAL Catalogue 1/3

- Preparing the INTEGRAL legacy All Archive (e.g., standard/best products, catalogues)
 - Future of OSA (e.g., stand-alone vs on-line processing)

Action 22–15 on PU Due: IUG 23

Gather inputs from stakeholders for a further discussion on the topic of working towards a final INTEGRAL catalogue at the next IUG.

Minutes IUG #22 Statements:

- -The current IBIS catalogue is complete to revolution 1500.
- -There is no current plan for a final INTEGRAL catalogue. The production of a final legacy catalogue requires significant manpower and effort, not currently available within the teams. A larger collaboration, with additional funding (e.g. via ESA, EU) may be required. There is a lack of clarity as to who should be responsible for the production of such a catalogue.
- -The OMC team has its own archive and plans to reprocess everything once more at the end of the mission for the legacy. CAB plans to keep its own archive beyond the lifetime of the mission.
- -Modern software tools and machine learning approaches should be incorporated into the development of a final catalogue.

Agenda: INTEGRAL Catalogue 2/3

- Minutes IUG #22: answers/questions:
- -The current IBIS catalogue is complete to revolution 1500
- → for Cat 1000 sources only (Dec 2010) plus light curves and spectra till Jan 2015
- → Work is planned for more recent revolutions
- -There is no current plan for a final INTEGRAL catalogue. The production of a final legacy catalogue requires significant manpower and effort, not currently available within the teams.
- → ESA fellowship or direct support to the teams is the easiest and straightforward solution

A larger collaboration, with additional funding (e.g. via ESA, EU) may be required. There is a lack of clarity as to who should be responsible for the production of such a catalogue.

→two approaches:

• Each team do its job plus a final coordination to homogenize the final products for: IBIS, SPI, Jem-X and OMC sources

Or centralization: INTEGRAL Source List; less interfaces, more difficult to implement....who?

IBIS Survey Team is willing to contribute in either cases, although do not have at the moment the necessary manpower →2 PostDoc positions may solve the issue on the long term

Agenda: INTEGRAL Catalogue 3/3

Few points for further discussion from the IBIS Survey Team

- Perhaps it's important to separate out the arguments for a final IBIS catalog, and a final INTEGRAL catalog, and whether they should be the same thing.
- From an IBIS viewpoint, there is no real value in the centralisation, except at the level of finally making the catalog (and products) available to the public. There is no useful cross-talk into IBIS before catalog construction begins. We know the starting 'cleaning catalog' is important
- → but it is reasonable to assume anything detected by SPI is already in our catalog,
- → and JEM-X sources will always be IBIS sources,
- → and OMC is very useful, although irrelevant in this respect.

The starting" *final*" IBIS catalog will be a merge of the IBIS and BAT latest source lists plus some historical sources - this is essentially the ISDC reference catalog.

- ➤ A final catalog could bring together the source lists and data products (light curves, spectra) in a standard way at the end to present a unified public interface.
- The four instruments capabilities are very different, and providing a unified interface to a mix of hard X-ray and optical data may be more confusing then four simple interfaces. Either way there are established formats for sharing spectra and light curves.