

WHAT I HAVE LIKED THIS TIME ...

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First and foremost ...

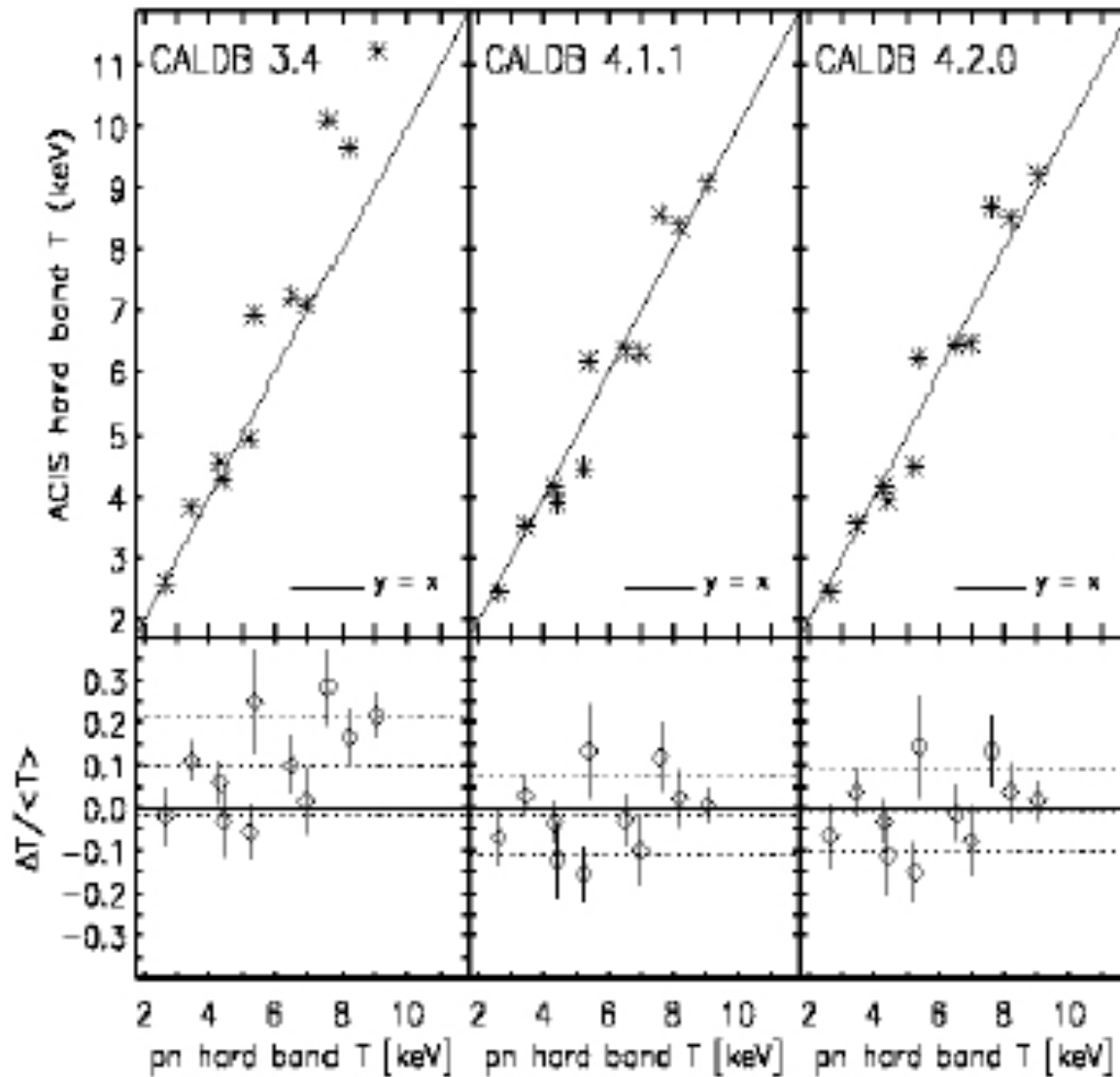


The warmest **THANKS** to Judith Taylor
(Conference Manager), Cheryl Green
(General Manager) and the whole MBL
staff for the efficient and exquisite
hospitality!

Do we start taking-off?

IACHEC year	Number of participants	Number of talks
2006 (Iceland)	36	26
2007 (UCLA)	35	30
2008 (Germany)	36	26
2009 (Japan)	35	34
2010 (Massachusetts)	45	50

Synthesis of the IACHEC story



(Nevalainen et al. in prep.)

Warning



- The *Chandra* and XMM-Newton Users' Groups are already aware of this success story, and take it for granted. We need more “success stories” if we wish to keep our credibility.

First times ...

- First attempts to solve simultaneously the “astrophysical” and the “calibration problem” (e.g.: Shaposnikov)
- First attempts to develop a self-consistent approach in the (re-)calibration of an instrument which takes into account cross-calibration information (e.g.: Sembay)
- First announcement of tools available to try and cope with calibration systematic uncertainties in calibration (e.g. Kashyap, Drake)
- First systematic attempt ask theorists to challenge traditional astrophysical wisdoms in our calibration work
 - ▣ “You invited me to explain you if blazars are power-law. But we build our models on the basis that *you tell us* that blazars are power-laws” (Boettcher, half-joking)
- First time that we finish a meeting with more WGs then when we started
 - CTI, contamination, background ...
- First successful lobster cracking tests for many non New Englanders
- First time that new missions actively look for support from the IACHEC crew (NuSTAR, MAXI)
- First time that IACHEC paper submission date seems closer than IXO/XEUS/Con-X launch date

Paper status

Paper	Missing	Submission
1E0102-7219	pn redistribution, RGS1/RGS2	mid-June 2010
Blazar sample	HRC/QE, SASv1.0	Summer 2010
Capella		IACHEC 2011
CCD	First step: SPIE papers	Long-term
Cluster	Figure editing, definition of standard candle, Fe-line diagnostics systematics	June 2010
Crab		IACHEC 2011
G153	O.K. ... data have just arrived	IACHEC2011
G21.5-0.9	Several (but non fundamental) analysis details – action items plan	August 2010
PKS2155-304	Suzaku/Chandra effective area	?

Coordinated submission desirable but unlikely
Alternative: use the word “IACHEC” in the title

General actions of WG

- For the new WGs Chairs: contact the whole IACHEC mailing list to invite membership to all
- All WG Chairs: Create a library of publications relevant to each WG and post them on the IACHEC Wiki
- RMF: start discussion on a possible paper studying the X-ray photoelectric column density along blazar lines-of-sight, and on the systematics associated to different cross-sections, abundances etc.

What next?

- We need to consolidate the work done
 - ▣ Submit papers
 - ▣ Identify new standard candles
 - ▣ Compare and standardize methodologies (CTI, contamination ...)
- How can we influence future mission?
 - ▣ Prepare memo on “calibration lessons learned” for the IXO requirement paper (R.Smith)?
- How can we avoid dispersion of data, documentation, expertise (especially of ground-based calibration)?
 - ▣ Start working on a formal common language (calibration data model)?
- To which extent can we “fit together” calibration and astrophysics?
 - ▣ Create a concrete “science case” of how the “Gaia approach” could be applied to an X-ray mission. Operational? New (NuSTAR)?
- ▣ D.Jerius’ proposal of a new “legacy WG” timely fits this ideas

Calibration Legacy Working Group

Areas of Interest

- Enhancing profile of Calibration and Cross-Calibration
- Best Practices for Data/Analysis/Procedures Mission Archives
 - Examine Herschel's Database
- Errors
- Calibration Knowledge Archive
 - Where to go for things you don't know
 - Rogue's Gallery

Products

- White Paper
- Lessons learned from previous missions
 - What worked
 - What didn't
 - What might have been done better
- Educational/Advocacy Materials

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- How can we avoid dispersion of data, documentation, expertise (especially of ground-based calibration)?
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- To which extent can we encompass “fit together” calibration and astrophysics
 - Create a concrete “science case” of how the “Gaia approach” could be applied to an X-ray mission. Operational? New (NuSTAR)?
- D.Jerius’ proposal of a new “legacy WG” fits perfectly
- **Prepare the next meeting**

For the next meeting



- 3.5 days is the right amount of time.
- Keep a “calibrators meet theorist session”
- 1/2 day demo on treatment of systematic uncertainties

IACHEC 2011: destination Europe

- Scottish castle?
- Sicilian beach?
- Aristocratic villa on the shore of a North Italy lake?
- Spanish monastery?
- Finnish hut?
- Village in the *campagna romana*?

European IACHECers: please investigate a possible venue by the **end of May 2010**.

[... anyhow it would be hard to do better than the excellent organization of **Herman** and **Paul**, the efficient and exquisite hospitality of the **MBL staff**. The warmest “thank you” to you all!]