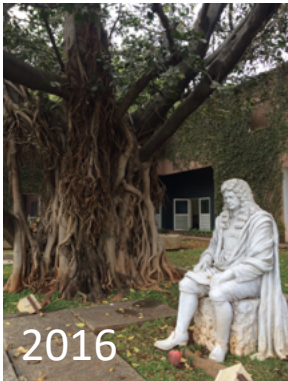


IACHEC Contamination WG

Eric D. Miller (MIT)



Membership

Eric Miller (chair, Suzaku, XRISM)

Andy Beardmore (Swift)

Akos Bogdan (Chandra)

Dave Burrows (Swift)

Vadim Burwitz (eROSITA)

Sunil Chandra (Astrosat)

Larry David (Chandra)

Tadayasu Dotani (XRISM)

Megan Eckart (XRISM)

Michael Freyberg (eROSITA)

Terry Gaetz (Chandra)

Catherine Grant (Chandra)

Kenji Hamaguchi (Suzaku, NICER)

Beverly LaMarr (Suzaku, NICER)

Maurice Leutenegger (XRISM)

Herman Marshall (Chandra)

Kallol Mukerjee (Astrosat)

Koji Mori (Suzaku, XRISM)

Steve O'Dell (Chandra)

Paul Plucinsky (Chandra)

Steve Sembay (XMM-Newton EPIC)

Doug Swartz (Chandra)

Masahiro Tsujimoto (Suzaku, XRISM)

Cor de Vries (XMM-Newton RGS)

Contact Eric (milleric@mit.edu) to be added to Contamination WG

Objectives (Revised 2017)

Contamination WG

Optics WG

- comparison among instruments and missions
 - chemical composition
 - time dependence
 - spatial dependence (micron to cm scales)
 - temperature dependence (where is the coldest surface?)
 - environmental dependence (orbit)
- mitigation for current instruments
 - celestial monitoring targets
 - effects on calibration and science results
 - "bake-out" procedures
- mitigation for future instruments
 - design (cold traps, contamination blocking filters)
 - procurement
 - ground procedures
 - ground testing and calibration
 - on-orbit monitoring

Contamination WG Plan (2018)

- instrument-specific refereed papers (e.g. JATIS)
 - Chandra/ACIS monitoring, modeling (Herman et al.)
currently: a few SPIE papers
 - Suzaku/XIS observational paper (Eric, XIS team)
currently: Koyama+2007, TD, web pages
 - XMM EPIC-MOS: in E0102 paper (Plucinsky+2017),
has not changed much
XMM RGS: in XMM-SOC-CAL-TN-0030 (July 2015)
- first step toward legacy white paper
via Optics WG



Agenda

- H. Marshall (20 min):
Chandra ACIS Contamination Monitoring
- P. Plucinsky (20 min):
Chandra ACIS Contamination Evolution
- T. Kohmura (20 min):
Transmission of CBF on Hitomi SXI
- J. Kaastra (10 min):
XMM RGS Contamination
- Next steps for WG (10 min):
 - Eric will take over clusters WG chair
 - Herman will take over contamination WG chair
 - We should make this more of a “working” group



Contamination WG Plan (2019)

- Paper detailing monitoring and modeling from previous and current missions
- Contact person needed for each mission and instrument that wants to be included
- Monthly telecons to stimulate progress
 - Identify additional analysis to perform in the next year
 - Assign writing responsibilities
- Goal: draft of paper by next IACHEC
- Should this be refereed (JATIS) or a white paper?

Contamination WG Plan (2019)

Mission/Instrument	Monitoring	Modeling	Contact Person
Chandra/ACIS	●	●	Herman
Suzaku/XIS	●	●	Eric
XMM/EPIC MOS	●	●	(Steve S.)
XMM/EPIC pn	●	✗	(Michael F.)
XMM/RGS	●	●	Jelle
Swift/XRT	●	✗	(Andy B.)
AstroSat	●	?	(Sunil)
HXMT	●	?	
NICER	●	✗	(Kenji)
Hitomi/SXI	●	✗	(Koji M.)

Contact Eric (milleric@mit.edu) to be added to Contamination WG