

Program
Workshop on X-ray Mission Architectural Concepts
Maritime Institute, Linthicum, MD

December 14, 2011

Session I - Perspective
(Chair: J. Bregman)

8:30	R. Petre (NASA/GSFC)	Welcome Background, goals of workshop, and study process
8:50	G. Yoder (NASA HQ)	NASA Headquarters perspective
9:05	R. Smith (SAO)	IXO science objectives; decadal view of IXO science
9:20	C. Wilson-Hodge (NASA/MSFC)	Future missions and their relation to IXO science objectives
9:35		Discussion
10:05		Break

Session II - Mission concepts - I
(Chair: W. Cash)

10:45	M. Garcia (SAO)	EPE - The Extreme Physics Explorer
11:10	R. Mushotzky (U. Maryland)	SAHARA - Spectral Analysis with High Angular Resolution Astronomy
11:35	M. Ulmer (Northwestern)	Concept for an orbiting Wide Field X-ray imaging spectrometer (WFXIS)
12:00	A. R. Rao (Tata Institute)	SuperMon & Black Hole Tracker
12:25		Discussion
12:45		Lunch

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Session III - Mission concepts - II
(Chair: R. Remillard)

13:45	M. Bautz (MIT)	AEGIS - An Astrophysics Experiment for Grating and Imaging Spectroscopy
14:10	W. Cash (University of Colorado)	The Warm-Hot Intergalactic Medium Explorer (WHIMEx)
14:35	S. Murray (Johns Hopkins)	Wide Field X-Ray Telescope Mission (WFXT)
15:00	M. Elvis (SAO)	REDUX: A Flexible Path for X-ray Astronomy
15:25		Discussion
15:45		Break

Session IV - Mission concepts - III
(Chair: D. Burrows)

16:15	P. Ray (NRL)	The Advanced X-ray Timing Array (AXTAR)
16:40	H. Krawczynski (Washington U.)	The Black Hole Evolution and Space Time (BEST) Observatory
17:05	D. Hartmann (Clemson)	Xenia: A Probe of Cosmic Chemical Evolution
17:30		Discussion
18:00		End

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Session V - Mission concepts - IV
(Chair: A. Hornschemeier)

8:30	N. White (NASA/GSFC)	Athena
8:55	J. Bookbinder (SAO)	AXSIO - The Advanced X-ray Spectroscopic Imaging Observatory
9:20	A. Vikhlinin (SAO)	Smart-X, "Square Meter, Arcsecond Resolution X-ray Telescope"
9:45	J. Grindlay (Harvard University)	Epoch of Reionization Energetic X-ray Survey (EREXS)
10:10	F. Harrison (CalTech)	The High Energy X-ray Probe (HEX-P)
10:35		Discussion
10:50		Break

Session VI - Enabling technology and instrument concepts - I
(Chair: C. Jones-Forman)

11:20	W. Zhang (NASA/GSFC)	Next Generation X-ray Optics: High-resolution, Light-weight, and Low-cost
11:35	B. Ramsey (NASA/MSFC)	Improving X-Ray Optics Through Differential Deposition
11:50	M. Ulmer (Northwestern)	Magnetostrictive films
12:05	J. Casstevens (Dallas Optical Sys.)	A 3 Meter Capacity Diamond Turning Machine
12:20	R. McEntaffer (University of Iowa) (W. Cash, presenter)	Reflection Grating Spectrometers
12:35	R. Heilmann (MIT)	Critical-Angle Transmission Gratings for High Resolution, Large Area Soft X-ray Spectroscopy
12:50	P. Gorenstein (SAO)	A Hard X-Ray Telescope for an X-Ray Spectroscopy Mission, Extending the Bandwidth
13:05		Lunch

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Session VII - Enabling technology and instrument concepts - II
(Chair: B. Ramsey)

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| 14:00 | H. Marshall (MIT) | Soft x-ray Polarimetry |
| 14:15 | C. Kilbourne (NASA/GSFC) | Enabling Technologies for the High-Resolution Imaging Spectrometer of the Next NASA X-ray Astronomy Mission – Options, Status, and Roadmap |
| 14:30 | P. Shirron (NASA/GSFC) | 5-Stage Continuous ADR for Future X-ray Missions |
| 14:45 | D. Burrows (Penn State) | Development of Fast Readout Technology in Support of Future X-ray Astronomy Missions |
| 15:00 | R. Danner (Northrup Grumman) | Precision Deployable, Stable, Optical Benches for Cost-Effective Space Telescopes |
| 15:15 | T. McIntyre (L-3 Communications) | Space Communication Rates at Multi-GBPS |
| 15:30 | Discussion | |
| 15:45 | Break | |

Session VIII - Discussion and Conclusion
(Chair: R. Petre)

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| 16:15 | J. Bregman (Michigan/CST chair) | Concepts for study / discussion |
| 17:30 | End of workshop | |