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Space Telescopes and Instrumentation 2008: Ultraviolet to Gamma Ray

**Martin J. L. Turner
Kathryn A. Flanagan**
Editors

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NASA Goddard Space Flight Ctr. (United States); J. Mazarella, L. Lozipone, M. Hong, G. Byron, SGT, Inc. (United States) and NASA Goddard Space Flight Ctr. (United States)

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(Netherlands); M. Freyberg, Max-Planck-Institut für Extraterrestrische Physik (Germany); M. Krumrey, Physikalisch-Technische Bundesanstalt (Germany)

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- 7011 1I **An imaging x-ray polarimeter for the study of galactic and extragalactic x-ray sources** [7011-57]
M. C. Weisskopf, NASA Marshall Space Flight Ctr. (United States); R. Bellazzini, Istituto Nazionale di Fisica Nucleare (Italy); E. Costa, Istituto de Astrofisica Spaziale e Fisica Cosmica (Italy); B. D. Ramsey, S. L. O'Dell, R. F. Elsner, A. F. Tennant, NASA Marshall Space Flight Ctr. (United States); G. G. Pavlov, Pennsylvania State Univ. (United States); G. Matt, Univ. degli Studi di Roma Tre (Italy); V. M. Kaspi, McGill Univ. (Canada); P. S. Coppi, Yale Univ. (United States); K. Wu, Univ. College London, Mullard Space Science Lab. (United Kingdom); O. H. W. Siegmund, Univ. of California, Berkeley, Space Sciences Lab. (United States); V. E. Zavlin, Universities Space Research Association (United States)
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- 7011 1L **The Lunar X-ray Observatory (LXO)** [7011-60]
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of Leicester (United Kingdom); M. Galeazzi, Univ. of Miami (United States); K. Hills, NASA Goddard Space Flight Ctr. (United States); K. Kuntz, Johns Hopkins Univ. (United States); A. Read, Univ. of Leicester (United Kingdom); I. P. Robertson, Univ. of Kansas (United States); S. Sembay, Univ. of Leicester (United Kingdom); D. G. Sibeck, S. Snowden, T. Stubbs, NASA Goddard Space Flight Ctr. (United States); P. Travnicek, Institute of Atmospheric Physics (Czech Republic)

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- 7011 1R **Focusing of gamma-rays with Laue lenses: first results (Invited Paper)** [7011-66]
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F. Frontera, Univ. degli Studi di Ferrara (Italy)

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H. Tsunemi, Osaka Univ. (Japan); H. Murakami, Rikkyo Univ. (Japan); T. Dotani, Institute of
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G. Prigozhin, S. Kissel, E. Miller, B. LaMarr, M. Bautz, Kavli Institute for Astrophysics and Space
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7011 2C **Front- and back-illuminated x-ray CCD performance in low- and high-Earth orbit:
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B. LaMarr, C. Grant, S. Kissel, G. Prigozhin, M. Bautz, Massachusetts Institute of Technology,
Kavli Institute for Astrophysics and Space Research (United States); T. G. Tsuru, Kyoto Univ.
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Science (Japan); I. Kawano, Tsukuba Space Ctr. (Japan)

7011 2E **The SMC SNR 1E0102.2-7219 as a calibration standard for x-ray astronomy in the 0.3-2.5
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P. P. Plucinsky, Harvard-Smithsonian Ctr. for Astrophysics (United States); F. Haberl, Max-
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Smithsonian Ctr. for Astrophysics (United States); O. Godet, Univ. of Leicester (United
Kingdom); V. Grinberg, Max-Planck-Institut für Extraterrestrische Physik (Germany);
E. D. Miller, Massachusetts Institute of Technology, Kavli Institute for Astrophysics and Space
Research (United States); A. M. T. Pollock, European Space Astronomy Ctr. (Spain);
S. Sembay, Univ. of Leicester (United Kingdom); R. K. Smith, NASA Goddard Space Flight
Ctr. (United States)

- 7011 2F **A study of GOES SXI entrance filter designs and the potential for on-orbit degradation** [7011-93]
R. M. LaVoy, J. Lemen, Lockheed Martin Solar and Astrophysics Lab. (United States);
S. Benner, NASA Goddard Space Flight Ctr. (United States); M. Morrison, D. Datlowe,
Lockheed Martin Solar and Astrophysics Lab. (United States); F. Powell, H. Lopez, R. Smith,
Luxel Corp. (United States); J. Anne, Lockheed Martin Solar and Astrophysics Lab. (United
States)
- 7011 2G **Monte-Carlo background simulations of present and future detectors in x-ray astronomy**
[7011-94]
C. Tenzer, E. Kendziorra, A. Santangelo, Kepler Ctr. for Astro and Particle Physics, Institute
for Astronomy and Astrophysics, Univ. of Tübingen (Germany)
- 7011 2H **Development of x-ray CCD camera system with high readout rate using ASIC** [7011-95]
H. Nakajima, D. Matsuura, N. Anabuki, E. Miyata, H. Tsunemi, Osaka Univ. (Japan);
J. P. Doty, Noqi Aerospace, Ltd. (Japan); H. Ikeda, Institute of Space and Astronautical
Science, Japan Aerospace Exploration Agency (Japan); H. Katayama, Earth Observation
Research Ctr., Japan Aerospace Exploration Agency (Japan)

POSTER SESSION: LARGE X-RAY OBSERVATORIES

- 7011 2I **Thin substrate grating array for sounding rocket and satellite payloads** [7011-96]
A. Shipley, Univ. of Colorado, Boulder, Ctr. for Astrophysics and Space Astronomy (United
States); R. L. McEntaffer, Univ. of Iowa (United States)

POSTER SESSION: MEDIUM X-RAY OBSERVATORIES

- 7011 2K **The x-ray microcalorimeter on the NeXT mission** [7011-98]
K. Mitsuda, N. Y. Yamasaki, K. Shinozaki, Y. Takei, T. Nakagawa, Institute of Space and
Astronautical Science, JAXA (Japan); H. Sugita, Y. Satoh, Aerospace Research and
Development Directorate, JAXA (Japan); R. Fujimoto, Kanazawa Univ. (Japan); T. Ohashi,
Y. Ishisaki, Y. Ezoe, Tokyo Metropolitan Univ. (Japan); M. Murakami, Tsukuba Univ. (Japan);
M. Tashiro, Y. Terada, Saitama Univ. (Japan); S. Kitamoto, Rikkyo Univ. (Japan);
T. Tamagawa, M. Kawaharada, T. Mihara, RIKEN (Japan); R. L. Kelley, C. A. Kilbourne,
F. S. Porter, P. J. Shirron, M. J. DiPirro, NASA Goddard Space Flight Ctr. (United States);
D. McCammon, Univ. of Wisconsin (United States); J.-W. den Herder, SRON Netherlands
Institute for Space Research (Netherlands)
- 7011 2L **NeXT SXI data processing system** [7011-99]
M. Ozaki, Institute of Space and Astronautical Science, Japan Aerospace Exploration
Agency (Japan); N. Anabuki, D. Matsuura, H. Nakajima, E. Miyata, K. Hayashida,
H. Tsunemi, Osaka Univ. (Japan); T. G. Tsuru, H. Matsumoto, Kyoto Univ. (Japan); A. Bamba,
Institute of Space and Astronautical Science, Japan Aerospace Exploration Agency
(Japan); T. Fujinaga, T. Dotani, Institute of Space and Astronautical Science, Japan
Aerospace Exploration Agency (Japan) and Tokyo Institute of Technology (Japan);
T. Takashima, T. Takahashi, H. Tomida, Institute of Space and Astronautical Science, Japan
Aerospace Exploration Agency (Japan); J. Hiraga, RIKEN (Japan); H. Murakami, Rikkyo
Univ. (Japan); T. Kohmura, Kogakuin Univ. (Japan); K. Masukawa, M. Kato, A. Nakajima,
Y. Watanabe, Mitsubishi Heavy Industry, Ltd. (Japan)

- 7011 2N **The MAXI mission operation plan** [7011-101]
S. Ueno, M. Matsuoka, K. Kawasaki, H. Tomida, Y. Adachi, M. Kohama, M. Suzuki, M. Ishikawa, H. Katayama, Japan Aerospace Exploration Agency (Japan); T. Mihara, M. Sugizaki, N. Isobe, The Institute of Physical and Chemical Research (Japan); H. Tsunemi, E. Miyata, Osaka Univ. (Japan); N. Kawai, J. Kataoka, Tokyo Institute of Technology (Japan); A. Yoshida, K. Yamaoka, Aoyama Gakuin Univ. (Japan); H. Negoro, M. Nakajima, Nihon Univ. (Japan); M. Morii, Rikkyo Univ. (Japan); Y. Ueda, S. Eguchi, Kyoto Univ. (Japan)
- 7011 2O **Soft x-ray calibration for the NeXT x-ray telescope** [7011-102]
Y. Maeda, T. Hayashi, H. Mori, R. Nakamura, T. Satoh, A. Sekiguchi, K. Someya, K. Tamura, M. Ishida, Institute of Space and Astronautical Science, Japan Aerospace Exploration Agency (Japan); T. Osawa, T. Shirata, M. Suzuki, Tokyo Metropolitan Univ. (Japan); Y. Ogasaka, A. Furuzawa, Y. Haba, T. Miyazawa, H. Kunieda, K. Yamashita, Nagoya Univ. (Japan); T. Okajima, NASA Goddard Space Flight Ctr. (United States)
- 7011 2P **Hard x-ray characterization of the NeXT hard x-ray telescopes at SPring-8** [7011-103]
T. Miyazawa, Y. Ogasaka, T. Iwahara, Y. Kanou, N. Sasaki, Y. Makinae, S. Sasaya, Y. Inukai, A. Furuzawa, Y. Haba, H. Kunieda, K. Yamashita, Nagoya Univ. (Japan); K. Uesugi, Y. Suzuki, Japan Synchrotron Radiation Research Institute, SPring-8 (Japan); K. Tamura, Y. Maeda, M. Ishida, Institute of Space and Astronautical Science, Japan Aerospace Exploration Agency (Japan); T. Okajima, NASA Goddard Space Flight Ctr. (United States)
- 7011 2Q **Design study of telescope housing for the NeXT/XRT** [7011-104]
H. Awaki, K. Ogi, Ehime Univ. (Japan); T. Okajima, P. J. Serlemitsos, Y. Soong, K.-W. Chan, NASA Goddard Space Flight Ctr. (United States); Y. Ogasaka, T. Miyazawa, A. Furuzawa, H. Kunieda, Y. Tawara, Nagoya Univ. (Japan); M. Ishida, Y. Maeda, H. Mori, K. Tamura, Institute of Space and Astronautical Science, Japan Aerospace Exploration Agency (Japan)
- 7011 2R **Development status and simulation study of monitor of all-sky x-ray image (MAXI) mission** [7011-105]
H. Tomida, M. Matsuoka, K. Kawasaki, S. Ueno, Y. Adachi, M. Kohama, M. Suzuki, Japan Aerospace Exploration Agency (Japan); M. Ishikawa, Japan Aerospace Exploration Agency (Japan) and Graduate Univ. for Advanced Studies, Sokendai (Japan); H. Katayama, Japan Aerospace Exploration Agency (Japan); T. Mihara, M. Sugizaki, N. Isobe, The Institute of Physical and Chemical Research, RIKEN (Japan); H. Tsunemi, E. Miyata, Osaka Univ. (Japan); N. Kawai, J. Kataoka, Tokyo Institute of Technology (Japan); A. Yoshida, K. Yamaoka, Aoyama Gakuin Univ. (Japan); H. Negoro, M. Nakajima, Nihon Univ. (Japan); Y. Ueda, S. Eguchi, Kyoto Univ. (Japan); M. Morii, Rikkyo Univ. (Japan)
- 7011 2S **MIXS focal plane assembly** [7011-106]
J. L. San Juan, J. Serrano, LIDAX (Spain); J. M. Mas-Hesse, Ctr. de Astrobiología (Spain); J. Treis, Max Planck Institut, Semiconductor Lab. (Germany); C. Whitford, T. Stevenson, Space Research Ctr., Univ. of Leicester (United Kingdom); E. Pedrosa, J. Moreno R, G. Peso, J. Moreno F, M. Lecina, LIDAX (Spain)

- 7011 2T **Design and development of the eROSITA x-ray mirrors** [7011-107]
P. Friedrich, H. Bräuninger, B. Budau, W. Burkert, J. Eder, M. J. Freyberg, G. Hartner, M. Mühlegger, P. Predehl, Max-Planck-Institut für extraterrestrische Physik (Germany); M. Erhard, S. Gutruf, D. Jugler, D. Kampf, Kayser-Threde GmbH (Germany); G. Borghi, O. Citterio, M. Rossi, G. Valsecchi, D. Vernani, Media Lario S.r.l. (Italy); M. Zimmermann, Carl Zeiss Optronics GmbH (Germany)
- 7011 2U **Calibration of the SphinX experiment at the XACT facility in Palermo** [7011-108]
A. Collura, INAF-Osservatorio Astronomico di Palermo Giuseppe S. Vaiana (Italy); M. Barbera, Univ. degli Studi di Palermo (Italy) and INAF-Osservatorio Astronomico di Palermo Giuseppe S. Vaiana (Italy); S. Varisco, INAF-Osservatorio Astronomico di Palermo Giuseppe S. Vaiana (Italy); G. Calderone, F. Reale, Univ. degli Studi di Palermo (Italy); S. Gburek, M. Kowalinski, J. Sylwester, M. Siarkowski, J. Bakala, P. Podgorski, W. Trzebinski, S. Plocieniak, Z. Kordylewski, Space Research Ctr. (Poland)
- 7011 2V **A fast event preprocessor for the Simbol-X Low-Energy Detector** [7011-109]
T. Schanz, C. Tenzer, E. Kendziorra, A. Santangelo, Institute for Astronomy and Astrophysics, Eberhard Karls Univ. of Tübingen (Germany)
- 7011 2W **Design of the pre-collimator for the NeXT x-ray telescopes** [7011-110]
H. Mori, ISAS/JAXA (Japan); Y. Ogasaka, Nagoya Univ. (Japan); M. Ishida, Y. Maeda, K. Tamura, ISAS/JAXA (Japan); H. Kunieda, A. Furuzawa, Y. Haba, T. Miyazawa, K. Yamashita, Nagoya Univ. (Japan); H. Awaki, Ehime Univ. (Japan); P. J. Serlemitsos, Y. Soong, K.-W. Chan, T. Okajima, NASA Goddard Space Flight Ctr. (United States)
- 7011 2X **Soft x-ray mirrors onboard the NeXT satellite** [7011-111]
T. Okajima, NASA Goddard Space Flight Ctr. (United States) and Johns Hopkins Univ. (United States); P. J. Serlemitsos, NASA Goddard Space Flight Ctr. (United States); Y. Soong, NASA Goddard Space Flight Ctr. (United States) and CRESST, Joint Ctr. for Astrophysics, Universities Space Research Association (United States); K.-W. Chan, NASA Goddard Space Flight Ctr. (United States) and CRESST, Joint Ctr. for Astrophysics, Univ. of Maryland, Baltimore County (United States); R. Petre, NASA Goddard Space Flight Ctr. (United States); Y. Ogasaka, T. Miyazawa, A. Furuzawa, H. Kunieda, Nagoya Univ. (Japan); M. Ishida, Y. Maeda, K. Tamura, H. Mori, Institute of Space and Aeronautical Science, Japan Aerospace Exploration Agency (Japan); H. Awaki, Ehime Univ. (Japan)
- 7011 2Y **A magnetic diverter for charged particle background rejection in the SIMBOL-X telescope** [7011-112]
D. Spiga, INAF, Osservatorio Astronomico di Brera (Italy); V. Fioretti, A. Bulgarelli, INAF, Istituto di Astrofisica Spaziale e Fisica Cosmica (Italy); E. Dell'Orto, INAF, Osservatorio Astronomico di Brera (Italy) and Univ. degli Studi dell'Insubria (Italy); L. Foschini, G. Malaguti, INAF, Istituto di Astrofisica Spaziale e Fisica Cosmica (Italy); G. Pareschi, G. Tagliaferri, INAF, Osservatorio Astronomico di Brera (Italy); A. Tiengo, INAF, Istituto di Astrofisica Spaziale e Fisica Cosmica (Italy)
- 7011 2Z **X-ray characterization of eROSITA mirror shells using out-of-focus images** [7011-113]
K. Misaki, Max-Planck-Institut für extraterrestrische Physik (Germany); M. J. Freyberg, Max-Planck-Institut für extraterrestrische Physik (Germany) and Max-Planck-Institut Röntgentestanlage PANTER (Germany); P. Friedrich, Max-Planck-Institut für

extraterrestrische Physik (Germany); W. Burkert, G. Hartner, B. Budau, Max-Planck-Institut für extraterrestrische Physik (Germany) and Max-Planck-Institut Röntgentestanlage PANTER (Germany)

POSTER SESSION: VERY HIGH RESOLUTION OPTICS

- 7011 30 **Science with Generation-X** [7011-114]
S. J. Wolk, R. J. Brissenden, M. Elvis, G. Fabbiano, Smithsonian Astrophysical Observatory (United States); A. E. Hornschemeier, NASA Goddard Space Flight Ctr. (United States); S. L. O'Dell, NASA Marshall Space Flight Ctr. (United States); M. W. Bautz, Massachusetts Institute of Technology, Kavli Institute for Astrophysics and Space Research (United States); D. A. Schwartz, M. Juda, Smithsonian Astrophysical Observatory (United States)
- 7011 31 **Stellar Imager: wavefront control** [7011-115]
R. G. Lyon, K. G. Carpenter, NASA Goddard Space Flight Ctr. (United States); P. Petrone, P. Dogoda, D. Reed, Sigma Space Corp. (United States); D. Mozurkewich, Seabrook Engineering (United States)

POSTER SESSION: X-RAY OPTICS

- 7011 33 **Technology development for nickel x-ray optics enhancement** [7011-116]
M. Gubarev, B. Ramsey, NASA Marshall Space Flight Ctr. (United States); D. Engelhaupt, Univ. of Alabama in Huntsville (United States); W. Arnold, NASA Marshall Space Flight Ctr. (United States)
- 7011 34 **X-ray imaging tests of Constellation-X SXT mirror segment pairs** [7011-117]
S. Owens Rohrbach, NASA Goddard Space Flight Ctr. (United States); T. J. Hadjimichael, L. Olsen, Ball Aerospace (United States); K.-W. Chan, J. P. Lehan, CRESST, NASA Goddard Space Flight Ctr. (United States), and Univ. of Maryland, Baltimore County (United States); P. B. Reid, Harvard-Smithsonian Ctr. for Astrophysics (United States); R. Petre, NASA Goddard Space Flight Ctr. (United States); S. L. O'Dell, NASA Marshall Space Flight Ctr. (United States); T. T. Saha, W. W. Zhang, NASA Goddard Space Flight Ctr. (United States)
- 7011 36 **Spiral conical approximations to double reflection Wolter optics** [7011-119]
M. Barbera, UNIPA (Italy) and INAF - Osservatorio Astronomico di Palermo (Italy); T. Mineo, E. Perinati, INAF - Istituto di Astrofisica Spaziale e Fisica Cosmica (Italy); H. W. Schnopper, Smithsonian Astrophysical Observatory (United States); D. Spiga, INAF - Osservatorio Astronomico di Brera (Italy); A. Taibi, UNIFE (Italy)
- 7011 37 **Surface roughness evaluation on mandrels and mirror shells for future X-ray telescopes** [7011-150]
G. Sironi, Univ. degli Studi dell'Insubria (Italy) and INAF, Osservatorio Astronomico di Brera (Italy); D. Spiga, INAF, Osservatorio Astronomico di Brera (Italy)
- 7011 38 **Mandrels manufacturing processes for Ni electroformed X-ray optics: profile errors contribution to imaging degradation** [7011-151]
G. Sironi, INAF, Osservatorio Astronomico di Brera (Italy) and Univ. degli Studi dell'Insubria (Italy)

POSTER SESSION: NEW X-RAY MISSIONS

- 7011 39 **Designing an x-ray baffle for stray-light reduction at the focal plane of the Wide Field Imager on board EDGE** [7011-120]
E. Perinati, T. Mineo, G. Cusumano, INAF-Istituto di Astrofisica Spaziale e Fisica Cosmica di Palermo (Italy); L. Piro, INAF-Istituto di Astrofisica Spaziale e Fisica Cosmica di Roma (Italy); G. Pareschi, INAF-Osservatorio Astronomica di Brera (Italy); M. Barbera, Univ. di Palermo (Italy)
- 7011 3A **Development of an electron-tracking Compton camera based on a gaseous TPC and a scintillation camera for a balloon-borne experiment** [7011-121]
K. Ueno, T. Tanimori, H. Kubo, K. Miuchi, S. Kabuki, Kyoto Univ. (Japan); A. Takada, ISAS/JAXA (Japan); H. Nishimura, K. Hattori, S. Kurosawa, C. Ida, S. Iwaki, Kyoto Univ. (Japan)
- 7011 3B **Calibrating and optimizing the imaging of the SuperAGILE experiment** [7011-122]
Y. Evangelista, IASF-INAF Roma (Italy) and Univ. degli studi di roma La Sapienza (Italy); E. Costa, E. Del Monte, G. Di Persio, I. Donnarumma, M. Feroci, M. Frutti, IASF-INAF Roma (Italy); I. Lapshov, IASF-INAF Roma (Italy) and CNR, Istituto Metodologie Inorganiche e dei Plasmi (Italy); F. Lazzarotto, IASF-INAF Roma (Italy); M. Mastropietro, IASF-INAF Roma (Italy) and CNR, Istituto Metodologie Inorganiche e dei Plasmi (Italy); E. Morelli, Istituto di Astrofisica Spaziale e Fisica Cosmica (Italy); L. Pacciani, IASF-INAF Roma (Italy); M. Rapisarda, ENEA UTS Fusione Technologie (Italy); A. Rubini, P. Soffitta, A. Argan, A. Trois, IASF-INAF Roma (Italy); A. Lo Bue, P. Rossi, L. Semeraro, ENEA UTS Fusione Technologie (Italy); M. Tavani, IASF-INAF Roma (Italy)

POSTER SESSION: GAMMA-RAY MISSIONS AND TECHNOLOGIES

- 7011 3C **The AIV quick look and health monitoring system of the AGILE payload** [7011-124]
A. Bulgarelli, F. Gianotti, M. Trifoglio, G. Di Cocco, INAF-IASF Bologna (Italy); M. Tavani, INAF-IASF Roma (Italy); M. Marisaldi, INAF-IASF Bologna (Italy)
- 7011 3D **The MGSE software for the on-ground gamma-ray calibration of the AGILE payload** [7011-125]
F. Gianotti, A. Bulgarelli, M. Trifoglio, G. Di Cocco, INAF-IASF Bologna (Italy); M. Tavani, INAF-IASF Roma (Italy); C. Labanti, A. Traci, INAF-IASF Bologna (Italy)
- 7011 3E **Architecture and performances of the AGILE Telemetry Preprocessing System (TMPPS)** [7011-126]
M. Trifoglio, A. Bulgarelli, F. Gianotti, INAF-IASF Bologna (Italy); F. Lazzarotto, INAF-IASF Roma (Italy); G. Di Cocco, F. Fuschino, INAF-IASF Bologna (Italy); M. Tavani, INAF-IASF Roma (Italy)
- 7011 3F **MEGALib: simulation and data analysis for low-to-medium-energy gamma-ray telescopes** [7011-127]
A. Zoglauer, Univ. of California, Berkeley, Space Sciences Lab. (United States); R. Andritschke, Max-Planck-Institut Halbleiterlabor (Germany) and Max-Planck-Institut für extraterrestrische Physik (Germany); S. E. Boggs, Univ. of California, Berkeley, Space Sciences Lab. (United States); F. Schopper, G. Weidenspointner, Max-Planck-Institut Halbleiterlabor (Germany) and Max-Planck-Institut für extraterrestrische Physik (Germany); C. B. Wunderer, Univ. of California, Berkeley, Space Sciences Lab. (United States)

- 7011 3G **A three-dimensional CZT detector as a focal plane prototype for a Laue Lens telescope** [7011-128]
E. Caroli, INAF-IASF (Italy); N. Auricchio, INAF-IASF (Italy) and Univ. di Ferrara (Italy);
C. Budtz-Jorgensen, National Space Institute, DTU (Denmark); R. M. Curado da Silva, Univ.
de Coimbra (Portugal); S. Del Sordo, A. Donati, INAF-IASF (Italy); I. Kuvvetli, National Space
Institute, DTU (Denmark); L. Natalucci, E. M. Quadrini, J. B. Stephen, G. Ventura, INAF-IASF
(Italy); A. Zappettini, IMEM-CNR (Italy)

POSTER SESSION: UV MISSIONS AND TECHNOLOGIES

- 7011 3I **Calibration and flight performance of the long-slit imaging dual order spectrograph** [7011-130]
R. E. Lupu, S. R. McCandliss, B. Fleming, Johns Hopkins Univ. (United States); K. France, Ctr.
for Astrophysics and Space Astronomy, Univ. of Colorado, Boulder (United States);
P. D. Feldman, Johns Hopkins Univ. (United States); S. Nikzad, Jet Propulsion Lab. (United
States)
- 7011 3J **The Diffuse Interstellar Cloud Experiment (DICE): opto-mechanical design** [7011-131]
E. Schindhelm, R. Kane, M. Beasley, J. Green, Ctr. for Astrophysics and Space Astronomy,
Univ. of Colorado, Boulder (United States)
- 7011 3K **The high-resolution lightweight telescope for the EUV (HiLITE)** [7011-133]
D. S. Martínez-Galarce, P. Boerner, Lockheed Martin Advanced Technology Ctr. (United
States); R. Soufli, Lawrence Livermore National Lab. (United States); B. De Pontieu, N. Katz,
A. Title, Lockheed Martin Advanced Technology Ctr. (United States); E. M. Gullikson,
Lawrence Berkeley National Lab. (United States); J. C. Robinson, S. L. Baker, Lawrence
Livermore National Lab. (United States)
- 7011 3L **Observations of Pt-Ne hollow cathode lamps similar to those used on the Cosmic Origins Spectrograph: spectroscopy and air testing** [7011-134]
G. Nave, C. J. Sansonetti, National Institute of Standards and Technology (United States);
F. Kerber, European Southern Observatory (Germany); S. V. Penton, Univ. of Colorado at
Boulder (United States); M. R. Rosa, Space Telescope European Co-ordinating Facility
(Germany)
- 7011 3M **Observations of Pt/Ne hollow cathode lamps similar to those used on the Cosmic Origins Spectrograph: photometry and vacuum testing** [7011-135]
S. V. Penton, Univ. of Colorado, Boulder (United States); N. Cunningham, Univ. of Nebraska,
Lincoln (United States); M. Beasley, S. Osterman, Univ. of Colorado, Boulder (United States);
F. Kerber, European Southern Observatory (Germany); G. Nave, C. J. Sansonetti, National
Institute of Standards and Technology (United States); C. D. Keyes, Space Telescope
Science Institute (United States); M. R. Rosa, Space Telescope European Co-ordinating
Facility (Germany)
- 7011 3O **Far ultraviolet scatter performance from holographic gratings** [7011-137]
M. Beasley, B. Gantner, J. Green, Univ. of Colorado, Boulder (United States)

POSTER SESSION: LOW TEMPERATURE DETECTORS

- 7011 3Q **An analog baseband feedback circuit for TES signals in frequency domain multiplexing** [7011-139]
N. Y. Yamasaki, K. Mitsuda, Y. Takei, K. Masui, T. Hagihara, S. Kimura, M. Koshiishi, I. Mitsuishi, K. Shinozaki, A. Tsuchiya, T. Yoshino, H. Yoshitake, Institute of Space and Astronautical Science, Japan Aerospace Exploration Agency (Japan); R. Fujimoto, Kanazawa Univ. (Japan); Y. Ishisaki, Tokyo Metropolitan Univ. (Japan)
- 7011 3R **Design of the two-stage series adiabatic demagnetization refrigerator for the NeXT and Spectrum-RG missions** [7011-140]
K. Shinozaki, K. Mitsuda, N. Y. Yamasaki, Y. Takei, Institute of Space and Astronautical Science, Japan Aerospace Exploration Agency (Japan); M. DiPirro, NASA Goddard Space Flight Ctr. (United States); Y. Ezoe, Tokyo Metropolitan Univ. (Japan); R. Fujimoto, Kanazawa Univ. (Japan); J. W. den Herder, SRON Netherlands Institute for Space Research (Netherlands); M. Hirabayashi, Sumitomo Heavy Industries, Ltd. (Japan); Y. Ishisaki, Tokyo Metropolitan Univ. (Japan); K. Kanao, Sumitomo Heavy Industries, Ltd. (Japan); M. Kawaharada, RIKEN (Japan); R. Kelley, C. Kilbourne, NASA Goddard Space Flight Ctr. (United States); S. Kitamoto, Rikkyo Univ. (Japan); D. McCammon, Univ. of Wisconsin, Madison (United States); T. Mihara, RIKEN (Japan); M. Murakami, Univ. of Tsukuba (Japan); T. Nakagawa, Institute of Space and Astronautical Science, Japan Aerospace Exploration Agency (Japan); T. Ohashi, Tokyo Metropolitan Univ. (Japan); F. S. Porter, NASA Goddard Space Flight Ctr. (United States); Y. Satoh, Aerospace Research and Development Directorate, Japan Aerospace Exploration Agency (Japan); P. Shirron, NASA Goddard Space Flight Ctr. (United States); H. Sugita, Aerospace Research and Development Directorate, Japan Aerospace Exploration Agency (Japan); T. Tamagawa, RIKEN (Japan); M. Tashiro, Saitama Univ. (Japan); S. Yoshida, Sumitomo Heavy Industries, Ltd. (Japan)
- 7011 3T **Recent developments in transition-edge strip detectors for solar x-rays** [7011-143]
A. J. Rausch, S. W. Deiker, Lockheed Martin Solar and Astrophysics Lab. (United States); G. Hilton, K. D. Irwin, National Institute of Standards and Technology (United States); D. S. Martinez-Galarce, L. Shing, R. A. Stern, Lockheed Martin Solar and Astrophysics Lab. (United States); J. N. Ullom, L. R. Vale, National Institute of Standards and Technology (United States)
- 7011 3U **Progress on the Micro-X rocket payload** [7011-144]
E. Figueroa-Feliciano, Massachusetts Institute of Technology (United States) MIT Kavli Institute for Astrophysics and Space Research (United States); P. Wikus, MIT Kavli Institute for Astrophysics and Space Research (United States); J. S. Adams, S. R. Bandler, NASA Goddard Space Flight Ctr. (United States) and Univ. of Maryland, College Park (United States); M. Bautz, MIT Kavli Institute for Astrophysics and Space Research (United States); K. Boyce, NASA Goddard Space Flight Ctr. (United States); G. Brown, Lawrence Livermore National Lab. (United States); S. Deiker, Lockheed Martin Solar and Astrophysics Lab. (United States); W. B. Doriese, National Institute of Standards and Technology (United States); K. Flanagan, MIT Kavli Institute for Astrophysics and Space Research (United States); M. Galeazzi, Univ. of Miami (United States); G. C. Hilton, National Institute of Standards and Technology (United States); U. Hwang, NASA Goddard Space Flight Ctr. (United States); K. D. Irwin, National Institute of Standards and Technology (United States); T. Kallman, R. L. Kelley, C. A. Kilbourne, NASA Goddard Space Flight Ctr. (United States); S. Kissel, S. W. Leman, A. Levine, MIT Kavli Institute for Astrophysics and Space Research (United States); M. Lowenstein, NASA Goddard Space Flight Ctr. (United States) and Univ. of Maryland, College Park (United States); D. Martinez-Galarce, Lockheed Martin Solar and

Astrophysics Lab. (United States); D. McCammon, Univ. of Wisconsin, Madison (United States); R. Mushotzky, R. Petre, F. S. Porter, NASA Goddard Space Flight Ctr. (United States); C. D. Reintsema, National Institute of Standards and Technology (United States); J. M. Rutherford, Massachusetts Institute of Technology (United States); T. Saabi, Univ. of Florida (United States); P. Serlemitsos, NASA Goddard Space Flight Ctr. (United States); N. Schulz, MIT Kavli Institute for Astrophysics and Space Research (United States); R. Smith, NASA Goddard Space Flight Ctr. (United States); J. N. Ullom, National Institute of Standards and Technology (United States)

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- 7011 3V **Gain properties of gas electron multipliers (GEMS) for space applications** [7011-145]
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