



X-RAY ASTRONOMY 2019

Current Challenges and New Frontiers in the Next Decade

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The FORCE mission: a future Japan-lead mission for broadband X-ray imaging spectroscopy with high-angular resolution

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We present the concept of a future Japan-lead X-ray medium-class mission, FORCE (Focusing On Relativistic universe and Cosmic Evolution). FORCE is characterized by broadband (1-80 keV) X-ray imaging spectroscopy with high angular resolution ($<15''$). The sensitivity above 10 keV will be 10 times higher than that of any previous hard X-ray missions. FORCE will trace the cosmic formation history by searching for "missing black holes" like buried supermassive black holes and orphan stellar-mass black holes. Investigation of the nature of relativistic particles at various astrophysical shocks is also in our scope. The current designs of the satellite and detectors and the future prospects of the mission are also presented.

Topic

Future missions

Affiliation

University of Miyazaki

Primary author: Dr MORI, Koji (University of Miyazaki)

Co-authors: Prof. TSURU, Takeshi (Kyoto University); Dr NAKAZAWA, Kazuhiro (Nagoya University); Prof. UEDA, Yoshihiro (Kyoto University); Dr OKAJIMA, Takashi (NASA/GSFC); Dr MURAKAMI, Hiroshi (Tohoku Gakuin University); Prof. AWAKI, Hisamitsu (Ehime University); Prof. MATSUMOTO, Hironori (Osaka University); Prof. FUKAZAWA, Yasushi (Hiroshima University); Prof. TSUNEMI, Hiroshi (Osaka University); Prof. ISHIDA, Manabu (ISAS/JAXA); Prof. TAKAHASHI, Tadayuki (University of Tokyo/Kavli IPMU); Prof. ZHANG, William (NASA/GSFC)

Presenter: Dr MORI, Koji (University of Miyazaki)

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