

Research in Astronomy and Astrophysics

Vol. 24 No. 10

October 2024

CONTENTS

Mini Volumn: GECAM Science Operation

The Design of GECAM Scientific Ground Segment

Shijie Zheng, Liming Song, Xiang Ma, Ping Wang, Rui Qiao et al. 104001

The In-Flight Realtime Trigger and Localization Software of GECAM

Xiao-Yun Zhao, Shao-Lin Xiong, Xiang-Yang Wen, Xin-Qiao Li, Ce Cai et al. 104002

A Localization Method of High Energy Transients for All-sky Gamma-ray Monitor

Yi Zhao, Wangchen Xue, Shaolin Xiong, Qi Luo, Yuanhao Wang et al. 104003

The GECAM Real-time Burst Alert System

Yue Huang, Dongli Shi, Xiaolu Zhang, Xiang Ma, Peng Zhang et al. 104004

In-flight Energy Calibration of the GECAM Gamma-ray Detectors

Rui Qiao, Dong-Ya Guo, Wen-Xi Peng, Yan-Qiu Zhang, Shuo Xiao et al. 104005

Research Papers

A Preliminary Comparative Study on the Centering Algorithms for Cassini- ISS NAC Images

T. Liang, Q.-F. Zhang, G.-M. Liu, W.-H. Zhu and C.-S. Wang 105001

BSN: The First Light Curve Analysis of the Total Eclipse Binary System EL Tuc

Elham Sarvari, Eduardo Fernández Lajús and Atila Poro 105002

Digital Beamforming Demonstration of a Microstrip Antenna Phased Array Feeds (PAF) at 1.25 GHz

Peng Wu (仵鹏), Mao-Zheng Chen (陈卯蒸), Jian Li (李健) et al. 105003

New γ -Ray Sources Identified in All-sky Surveys Based on Fermipy' s Advanced Algorithm

Yunchuan Xiang, Peng Feng and Xiaofei Lan 105004

Fast Two-dimensional Positioning Method of Crab Pulsar Based on Multiple Optimization Algorithms

Jianfeng Chen, Jin Liu, Xin Ma and Xiaolin Ning 105005

Fermi Blazars in the Zwicky Transient Facility Survey: Properties of Large Optical Variations

Si-Si Sun, Zhong-Xiang Wang and Shun-Hao Ji 105006

The Impact of Nova Outbursts on the Chemical Abundance of the Interstellar Medium

Guoli He, Chunhua Zhu, Guoliang Lü et al. 105007

FAST Observations of Four Comets to Search for the Molecular Line Emissions between 1.0 and 1.5 GHz Frequencies

Long-Fei Chen, Chao-Wei Tsai, Jian-Yang Li et al. 105008

Nonlinear Coupling of Kinetic Alfvén Waves and Ion Acoustic Waves in the Inner Heliosphere

Mani K Chettri, Vivek Shrivastav, Rupak Mukherjee et al. 105009

Physics-informed Neural Network for Force-free Magnetic Field Extrapolation

Yao Zhang, Long Xu and Yihua Yan 105010

Observation of Standing Slow Magneto-acoustic Waves in a Flaring Active Region Corona Loop

A. Abedini 105011

On the Energy Budget of Starquake-induced Repeating Fast Radio Bursts

Wei-Yang Wang (王维扬), Chen Zhang (张晨), Enping Zhou (周恩平) et al. 105012

The Evolution of Photospheric Current Density During an X9.3-Class Solar Flare

Hai-Li Li, Hong-Fei Liang, Xin-Ping Zhou, Yu Liu, Ni Meng and Yu-Long Feng 105013