

Research in Astronomy and Astrophysics

Vol. 25 No. 5

2025 May

CONTENTS

Letters

2.5 m Space Station Co-orbiting Coaxial Telescope <i>Dingqiang Su, Hua Bai, Xiangyan Yuan, Genrong Liu, Xiangqun Cui and Xiaojie Jiao</i>	051001
MHD Simulations of the Slow-rise Phase of Solar Eruptions Initiated from a Sheared Magnetic Arcade <i>Qingjun Liu, Chaowei Jiang and Zhipeng Liu</i>	051002

Data Papers

LAMOST Spectral Data Processing: Classification, Redshift Measurement, and Data Product Creation <i>Xiao Kong and A-Li Luo</i>	057001
Stellar Parameters, Extinction, and Distances for Stars in SMSS DR2 by the SPar Method <i>Mingxu Sun, Bingqiu Chen, Baokun Sun, Tao Wang, Zheng Yu et al.</i>	057002

Research Papers

Development of 6 inch 80- – 170 GHz Broadband Silicon Plated Horn Antenna Arrays for Primordial Gravitational Wave Search <i>Yuan-Hang He, Shi-Bo Shu, Ya-Qiong Li, Xue-Feng Lu, Ye Chai et al.</i>	055001
Timing and Spectral Analysis of 4U 1626–67 Using AstroSat/LAXPC <i>N. J. Juris, Marykutty James and Jincy Devasia</i>	055002
The Fall and Origins of the Meteoroid Tanxi <i>Bin Li, Zhijian Xu, Ye Li, Shiyong Liao, Shoucun Hu, Weibiao Hsu and Haibin Zhao</i>	055003
A New Method to Predict Particle Sizes of Lunar or S-type Asteroid Surfaces Based on the Laboratory Thermal-infrared Data <i>Yao Xiao, Bin Liu, Xin Ren, Da-Wei Liu, Wan-Qi Zhao and Juan Xie</i>	055004
Optimizing the Input of Liouville Convolution Improves the 10 Day Predictions of Polar Motion <i>Wei Miao, Xueqing Xu and Yonghong Zhou</i>	055005
The Photometric Investigation of Totally Eclipsing Contact Binaries NSVS 9023048 and NSVS 2461789 <i>Wei Tao, Bin Zhang and Zhen Zhong</i>	055006
Improving Pulsar Candidate Identification with Grid Group Uniform Sampling <i>Yi-Ning Song, Mao-Zheng Chen and Zhi-Yong Liu</i>	055007
Exploring H I Galaxy Redshift Survey Strategies for the FAST Core Array Interferometry <i>Zhenglong Li, Diqiang Liu, Chengliang Xu, Yichao Li and Xin Zhang</i>	055008
Unveiling the Quenching Mode of Dwarf Galaxies Beyond Redshift $z = 1$ with JWST Image Stacking <i>Yubin Li, Nan Li, Fengshan Liu, Jirong Mao, Qifan Cui et al.</i>	055009
A Cartesian Catalog of 30 Million Gaia Sources Based on Second-order and Monte Carlo Error Propagation <i>Luyao Zhang, Fabo Feng, Yicheng Rui, Guang-Yao Xiao and Wenting Wang</i>	055010
The Short-spacing Interferometer Array for Global 21 cm Signal Detection (SIGMA): Design of the Antennas and Layout <i>Feiyu Zhao, Quan Guo, Qian Zheng, Ruxi Liang, Pengfei Zhang et al.</i>	055011
Characteristics, Classification and Challenges in Searching for CEMP Stars <i>Lefeng He, Xiangru Li, Xiaoming Kong, A-Li Luo and Haifeng Yang</i>	055012
Photometric Calibration of Spectral Imaging CoronaGraph with Dual-wavelength Observation <i>Ning Tang, Wei-Xin Liu, Xian-Liang Mao, Xiao-Yu Yu, Xiu-Hui Zuo et al.</i>	055013
Forming a Clumpy Circumstellar Material in Energetic Pre-supernova Activity <i>Shlomi Hillel, Ron Schreier and Noam Soker</i>	055014
The Nature of the Accretion Physics in Quiescent Black Hole System LB-1 <i>Tong Su, Erlin Qiao, Song Wang and Qi Guo</i>	055015
Thermal Evolution of the Central Compact Object in HESS J1731–347 as Evidence for a Color-flavor-locked Strange Star <i>Ya-Jing Yuan and Xia Zhou</i>	055016
A Study of Multiple Molecular Lines at the 3mm Band toward Gas Infalling Sources <i>Yang Yang, Xi Chen, Zhibo Jiang, Zhiwei Chen, Shuling Yu and Jun Li</i>	055017
Dependence of 4000 Å Break Strength on Narrow Emission Line Properties in Local Type-2 AGN <i>Xue-Guang Zhang</i>	055018
Period – luminosity and Period – luminosity – metallicity Relations for δ Scuti Stars <i>Yan-Qi Liu, Xiao-Dian Chen, Shu Wang, Kun Wang, Qi Jia and Li-Cai Deng</i>	055019
A Widely Applicable Galaxy Group Finder Using Machine Learning: Application to SDSS DR13 <i>Juntao Ma, Jie Wang, Tianxiang Mao, Hongxiang Chen, Yuxi Meng et al.</i>	055020
Improving Photometric Redshift Estimation for CSST Mock Catalog Using SED Templates Calibrated with Perturbation Algorithm <i>Yicheng Li, Liping Fu, Zhu Chen, Zhijian Luo, Wei Du et al.</i>	055021
The Photosphere Evolution, the Energy Sources, and the Early-time Excess of PTF11rka <i>Liu-Yi Wang (王浏毅), Shan-Qin Wang (王善钦), Tao Wang (王涛) et al.</i>	055022