

10 研究成果報告 (2000年に発表されたもの)

使用された天文台装置の略号は以下のとおりです。

| 略号 | 装置 |
|----|-------------|
| P | 65 cm 屈折望遠鏡 |
| D | ドームレス太陽望遠鏡 |
| K | 花山画像解析システム |
| F | フレア監視望遠鏡 |
| O | その他 |

10.1 出版

- (1) O A. Takeda, H. Kurokawa, R. Kitai, and K. Ishiura,
Contribution and Properties of the Green- and Red-Line Coronal Loops in the K-Corona,
PASJ, vol.52, 375-391 (2000)
- (2) P Nakakushi, T., Akabane, T., Iwasaki, K. and Larson, S.M.
Mars: Properties of the aphelion cloud belt Proc. 33rd ISAS Lunar Plan. Symp. (2000)
- (3) O Hayakawa, T., Akabane, T., and Narumi, Y.
Annual behavior of Mars polar caps and atmospheric pressure in the numerical simulation
Proc. 33rd ISAS Lunar Plan. Symp. (2000)
- (4) O Gaensicke, B.T., Fried, R.E., Hagen, H.-J., Beuermann, K., Engels, D., Hessman,
F.V., Nogami, D., and Reinsch, K.
HS 0907+1902: a new 4.2 hr eclipsing dwarf nova A&A 356, L79-L82 (2000)
- (5) O Kato, T., Nogami, D., Baba, H., Hanson, G., and Poyner, G.
CR Boo: the 'helium ER UMa star' with a 46.3-d supercycle MNRAS 315, 140-148 (2000)
- (6) O Baba, H., Kato, T., Nogami, D., Hirata, R., Matsumoto, K., and Sadakane, K.
Discovery of a New SU UMa-Type Dwarf Nova, V 1028 Cygni PASJ 52, 429-436 (2000)
- (7) F F Li, H., Sakurai, T., Ichimoto, K., UeNo, S.
Magnetic Field Evolution Leading to Solar Flares I. Cases with Low Magnetic Shear and
Flux Emergence Publ. of the Astronomical Society of Japan, v.52, p.465-481
- (8) F F Li, H., Sakurai, T., Ichimoto, K., UeNo, S.
Magnetic Field Evolution Leading to Solar Flares II. Cases with High Magnetic Shear
and Flare-Related Shear Change Publ. of the Astronomical Society of Japan, v.52,
p.483-497
- (9) D 上野 悟
飛騨マグネトグラフの簡易磁場導出法と乗鞍ポラリメータデータとの比較研究会
「太陽表面磁場ベクトル導出法の確立」集録、31-40、(2000)
- (10) D Kurokawa H. and Sano S.,
H α Surges in Emerging Flux Regions as an Evidence of Magnetic Field Reconnection.
Advanced Space Res. Vol.26, pp441-444 (2000)

- (11) **D** Kurokawa H. and Yoshimura K.,
Relationship between H α AFS Loops and Soft X-ray Brightening Loops in Emerging Flux Regions *Advanced Space Res.* Vol.25, pp1825-1828 (2000)
- (12) **D** Ishii, T.T., Kurokawa, H., & Takeuchi, T.T.
Emergence of Twisted Magnetic Flux Bundles and Flare Activity in a Large Active Region NOAA 4201 (2000) *PASJ*, 52, 337.
- (13) **O** Takeuchi, T.T., Yoshikawa, K., & Ishii, T.T.
Tests of Statistical Methods for Estimating Galaxy Luminosity Function and Application to the Hubble Deep Field (2000) *ApJS*, 129, 1.
- (14) **O** Takeuchi, T.T., Ishii, T.T., Hirashita, H., Yoshikawa, K., Matsuhara, H., Kawara, K., & Okuda, H.
Exploring Galaxy Evolution from the Infrared Number Counts and Cosmic Infrared Background (2001) *PASJ*, in press.
- (15) **O** Ishii, T. T. , Takeuchi, T.T., Hirashita, H., & Yoshikawa, K.
Cosmic Star Formation History Required from Infrared Galaxy Number Count : Future Prospect for Infrared Imaging Surveyor (IRIS) (2000) in *Star Formation from the Small to the Large Scale*, 33rd ESLAB Symposium, SP-445, 421.
- (16) **O** Takeuchi, T.T. , Ishii, T. T., & Yoshikawa, K.
Tests of Statistical Methods for Estimating Galaxy Luminosity Function and Applications to the Hubble Deep Field : Implication to the Cosmic Star Formation (2000) in *Star Formation from the Small to the Large Scale*, 33rd ESLAB Symposium, SP-445, 527.
- (17) **O** Takeuchi, T.T., Ishii, T. T. , Hirashita, H., & Yoshikawa, K.
Dusty Era of the Universe: Infrared Galaxy Number Counts and Cosmic Infrared Background (2001) in *The Physics of Galaxy Formation*, ASP Conference Series, to appear
- (18) **O** Takeuchi, T.T., Yoshikawa, K. , & Ishii, T. T.
Galaxy Luminosity Function: Applications and Cosmological Implications (2001) in *New Cosmological Data and the Values of the Fundamental Constants*, IAU Symposium 201, to appear
- (19) **K** Ishii, T. T. , Takeuchi, T.T., & Kurokawa, H.
Active Region Evolutions and Flare Activities: From the Photosphere to the Corona (2001) in *Recent Insights into the Physics of the Sun and Heliosphere: Highlights from SOHO and Other Space Missions*, IAU Symposium 203, to appear
- (20) **O** Takeuchi, T.T., Hirashita, H., Ishii, T. T., & Yoshikawa, K.
Galaxy Evolution in the Infrared: Galaxy Number Counts and the Cosmic Infrared Background (2001) in *The Extragalactic Background and Its Cosmological Implications*, IAU Symposium 204, to appear
- (21) **O** Okuda, H., Kawara, K., Matsuhara, H., Taniguchi, Y., Sato, Y., Sofue, Y., Matsumoto, T., Wakamatsu, K., Takeuchi, T.T., Hirashita, H., Ishii, T. T., Yoshikawa, K., Cowie, L. L., Sanders, D. B., & Joseph, R. D.
Two Bands FIR Survey of the Lockman Hole by ISO: Burst formation of Star-burst galaxies in the period around $z = 0.7$ (2001) in *FIRSED 2000*, to appear

- (22) O Kawaguchi, T., Mineshige, S., Machida, M., Matsumoto, R., and Shibata, K.
Temporal $1/f^\alpha$ Fluctuations from Fractal Magnetic Fields in Black Hole Accretion Flow, PASJ, 52, L1-L4 (2000)
- (23) O Koide, S., Meier, D., Kudoh, T., and Shibata, K.,
General Relativistic Simulations of Jet Formation in a Rapidly Rotating Black Hole Magnetosphere, Ap. J., 536, 668-674 (2000)
- (24) O Chou, W., Matsumoto, R., Tajima, T., Umekawa, M., and Shibata, K.
Dynamics of the Parker-Jeans Instability in a Galactic Gaseous Disk, ApJ, 538, 710-727 (2000)
- (25) O Ohyama, M., Shibata, K.,
Timing and Occurrence Rate of X-ray Plasma Ejections, J. of Atmospheric and Solar-Terrestrial Physics, 62, 1509-1514 (2000)
- (26) O Shimojo, M., and Shibata, K.,
Physical Parameters of X-ray Jets, ApJ 541, 1100-1108 (2000)
- (27) O Zhang, H. Q., Sakurai, T., Shibata, K., Shimojo, M., Kurokawa, H.,
Soft X-ray flares and magnetic configuration in a solar active region in February 1992, Astronomy and Astrophysics, 357, 725-734 (2000)
- (28) O Magara, T., Chen, P. F., Shibata, K., and Yokoyama, T.,
A unified model for CME-related type II radio bursts, ApJ 538, L175-L178 (2000)
- (29) O Chen, P. F., and Shibata, K.,
An Emerging Flux Trigger Mechanism for Coronal Mass Ejections, ApJ, 545, 524-531 (2000)
- (30) O Kuwabara, T., Shibata, K., Kudoh, T., and Matsumoto, R.,
Resistive Magnetohydrodynamic Simulations of Jet Formation and Magnetically Driven Accretion, PASJ, 52, 1109-1124 (2000)
- (31) O Shibata, K.,
Plasmoid-Induced-Reconnection Model of Flares(invited talk), in Proc. Yokoh 8th Anniversary Symposium, "Explosive Phenomena in Solar and Space Plasmas ", ed. T. Kosugi, T. Watanabe, and M. Shimojo, ISAS, pp. 69-72, 2000.
- (32) O Terasawa, T., Shibata, K., and Scholer, M.,
Comparative Study of Flares and Substorms, Adv. Space Res. 26, 573-583. (2000)
- (33) O Shibata, K., Koide, S., Kudoh, T., Aoki, S.,
Jets from Black Hole Magnetospheres (invited talk), in Highly Energetic Physical Processes and Mechanisms for Emission from Astrophysical Plasmas, Proceedings of IAU Symposium 195, P. Martens (ed.), Astronomical Society of the Pacific, San Francisco, p. 26-272 (2000)
- (34) O Shibata, K.,
MHD Simulations of Jets from Magnetized Accretion Disk (invited talk), in Astrophysical Phenomena Revealed by Space VLBI, H. Hirabayashi, P. G. Edwards, and D. W. Murphy (eds.), ISAS, 29-30 (2000)

- (35) O Yokoyama, T.; Shibata, K.
Numerical Simulations of Solar Flares 2000 IAUS..195..445-446
- (36) O Kudoh, T.; Matsumoto, R.; Shibata, K.
Collimation of Magnetically Driven Outflows from Accretion Disks 2000 IAUS..195..407-408
- (37) O Kato, S. X.; Kudoh, T.; Shibata, K.
Which Forces Accelerate Jets? 2000 IAUS..195..401-402
- (38) O Aoki, S. I.; Koide, S.; Shibata, K.; Kudoh, T.
General-Relativistic MHD Simulation of Jets from a Geometrically Thin Accretion Disk Around a Schwarzschild Black Hole 2000 IAUS..195..373-374
- (39) O Saito, Takao; Shibata, K.; Dere, K. P.; Numazawa, S.
Non-Radial Unipolar Coronal Streamers in Magnetically High Latitudes and Radial Bipolar Streamers at the Magnetic Equator of the Sun 2000 AdSpR..26..807-810
- (40) O Hayashi, Mitsuru; Shibata, K.; Matsumoto, R.
Recurrent Magnetic Reconnection in Protostellar Magnetosphere 2000 AdSpR..26..567-570
- (41) O Matsumoto, R.; Tonooka, H.; Tajima, T.; Chou, W.; Shibata, K.
Three-Dimensional MHD Simulations of the Emergence of Twisted Flux Tubes 2000 AdSpR..26..543-546
- (42) O Magara, T.; Shibata, K.
Resistive Processes in the Preflare Phase of Eruptive Flares 2000 AdSpR..26..521-524
- (42) O Tonooka, H.; Matsumoto, R.; Miyaji, S.; Martin, S. F.; Canfield, R. C.; Reardon, K.; McAllister, A.; Shibata, K.
Simultaneous H α ; and X-ray Observations of Prominence Eruption and Disappearance 2000 AdSpR..26..473-476
- (43) O Ohyama, Masamitsu; Shibata, Kazunari
X-Ray Plasma Ejection and Magnetic Reconnection 2000 AdSpR..26..461-464
- (44) O Shimojo, M.; Shibata, K.
Observational Evidence of Magnetic Reconnection in Solar X-Ray Jets 2000 AdSpR..26..449-452
- (45) O Kato, T.; Kato, M.; Shibata, K.
Time Dependent Ionization Balance in Solar Flares 2000 AdSpR..25.178-181
- (46) O Yashiro, S.; Shibata, K.; Shimojo, M.
Thermal Evolution of Coronal Active Regions Observed with the Yohkoh Soft X-Ray Telescope 2000 AdSpR..25.177-180
- (47) O Tanuma, S.; Yokoyama, T.; Kudoh, T.; Shibata, K.
2D Numerical MHD Simulation of Magnetic Reconnection As the Origin of Interstellar Hot Plasma 2000 AdSpR..25..509-512

- (48) O Yokoyama, T.; Tanuma, S.; Kudoh, T.; Shibata, K.
Magnetic Reconnection Model of X-ray Plasmas in the Galactic Center 2000 AdSpR..25..505-508
- (49) O Matsumoto, R.; Valinia, A.; Tajima, T.; Makishima, K.; Shibata, K.
Formation of Localized Strongly Magnetized Regions in Galaxies and Clusters of Galaxies 2000 AdSpR..25..499-502
- (50) O 柴田一成
プラズマ・核融合学会誌 Vol. 76, No.7 (2000) pp.631-632 小特集 宇宙ジェットの物理
- (51) D S.UeNo, R.Kitai, K.Ichimoto, T.Sakurai, D.Soltau, and P.N. Brandt
Preliminary Study of the Evolution of Solar Magnetic Structures and Photospheric Horizontal Velocity Fields Adv.Space Res. Vol.26, No.11, pp.1793-1796, 2000

10.2 研究会報告

VSOP symposium (宇宙研) 1月

- (1) O Shibata, K.
MHD Simulations on Jets Ejected from Magnetized Accretion Disks

枚方市立枚方第1中学校講演 1月

- (2) O 柴田一成
学者・研究者とはどんな職業か?

L5 ミッション研究会 (宇宙研) 2月

- (3) O 柴田一成
L5 ミッションによる太陽研究

太陽圏シンポジウム「太陽活動と太陽圏」(名古屋大) 2月

- (4) D 北井 礼三郎
飛騨・花山天文台での太陽磁場・速度場の観測

U. Tokyo Symposium on "Magnetic Reconnection in Space and Laboratory Plasmas" (東大山上会館) 2月

- (5) O Shibata, K.
What is the condition for fast reconnection? - Implication from the solar observations and numerical simulations -

第二回「ディスクとジェットの相互作用」研究会 (国立天文台三鷹) 3月

- (6) O 柴田一成
宇宙ジェットの磁気流体加速機構

齋藤衛教授退官記念講演会 (京大宇宙物理教室) 3月

- (7) O 柴田一成
コロナの加熱