# Publication List

Hsiang-Kuang Chang, March 2021

## A. Journal papers

81. Accretion Properties of MAXI J1813-095 during its Failed Outburst in 2018
Arghajit Jana, Gaurava K. Jaisawal, Sachindra Naik, Neeraj Kumari, Debjit Chatterjee, Kaushik Chatterjee, Riya Bhowmick, Sandip K. Chakrabarti, **Hsiang-Kuang Chang,** and Dipak Debnath
Submitted

80. AstroSat Observation of Non-Resonant Type-C QPOs in MAXI J1535-571
D. Chatterjee, D. Debnath, A. Banerjee, A. Bhattacharjee, A. Jana, K. Chatterjee, R. Bhowmick, S. Nath, J.-R. Shang, T. B. Katoch, S. K. Chakrabarti, **H.-K. Chang**, and H. M. Antia
Submitted.

79. Violent 2015 Outburst of V404 Cygni: Analysis with TCAF
Arghajit Jana, Jie-Rou Shang, Dipak Debnath, Sandip K. Chakrabarti, Debjit Chatterjee, **Hsiang-Kuang Chang**
Submitted.

78. High Frequency Radio Observations of Two Magnetars, 1E 1547.0−5408 and PSR J1622−4950
Che-Yen Chu, C.-Y. Ng, Albert K. H. Kong, **Hsiang-Kuang Chang**
*Monthly Notices of the Royal Astronomical Society*, 503, 1214 (2021)

77. The power-law component of the X-ray emissions from pulsar wind nebulae and their pulsars
Jr-Yue Hsiang, **Hsiang-Kuang Chang**
*Monthly Notices of the Royal Astronomical Society*, 502, 390 (2021)

76. Feasibility of Observing Gamma-ray Polarization from Cygnus X-1 Using a CubeSat
Chien-Ying Yang, Yi-Chi Chang, Hung-Hsiang Liang, Che-Yen Chu, Jr-Yue Hsiang, Jeng-Lun Chiu, Chih-Hsun Lin , Philippe Laurent, Jerome Rodriguez, and **Hsiang-Kuang Chang**
*Astronomical Journal*, 160, 54 (2020)

75. Concept study of a small Compton polarimeter to fly on a cubesat

Yi-Chi Chang, Chien-Ying Yang, Hung-Hsiang Liang, Che-Yen Chu, Jeng-Lun Chiu, Chih-Hsun Lin, Philippe Laurent , and **Hsiang-Kuang Chang**
*Journal of the Italian Astronomical Society (Mem. S. A. It.)*, 90, 144 (2019)

74. The kinematic distances of SNR G16.7+0.1 andG15.9+0.2 by analyzing HI absorption spectra
W.W. Tian, H. Zhu, M.F. Zhang, **H.K. Chang**, S.S. Shan & D.A. Leahy
*Publications of the Astronomical Society of the Pacific*, 131:114301 (2019)

73. Evolution of X-ray Properties of MAXI J1535-571: Analysis with the TCAF Solution
J.-R. Shang, D. Debnath, D. Chatterjee, A. Jana, S. K. Chakrabarti, **H.-K. Chang**, Y.-X.Yap, C.-L. Chiu
*Astrophysical Journal*, 875, 4 (2019)

72. INSIGHT-HXMT Observations of the New Black Hole Candidate MAXI J1535−571: Timing Analysis
Y. Huang, J. L. Qu, S. N. Zhang, Q. C. Bu, Y. P. Chen, L. Tao, S. Zhang, F. J. Lu, T. P. Li, L. M. Song, Y. P. Xu, X. L. Cao, Y. Chen, C. Z. Liu, **H.-K. Chang**, et al.
*Astrophysical Journal*, 866, 122 (2018)

71. Chandra Observation of PWN G16.73+0.08 in SNR G16.7+0.1
**H.-K. Chang**, S.-F. Chung, C.-Y. Yang and W. W. Tian
*Monthly Notices of the Royal Astronomical Society*, 474, 2607 (2018)

70. Maximum Likelihood Compton Polarimetry with the Compton Spectrometer and Imager
A.W. Lowell, S.E Boggs, C.L. Chiu, C.A. Kierans, C. Sleator, J.A. Tomsick, A.C. Zoglauer, **H.-K. Chang**, C.-H. Tseng, C.-Y. Yang, P. Jean, P. von Ballmoos, C.-H. Lin, and M. Amman
*Astrophysical Journal*, 848, 120 (2017)

69. Polarimetric Analysis of the Long Duration Gamma-Ray Burst GRB 160530A With the Balloon Borne Compton Spectrometer and Imager
A.W. Lowell, S.E Boggs, C.L. Chiu, C.A. Kierans, C. Sleator, J.A. Tomsick, A.C. Zoglauer, **H.-K. Chang,** C.-H. Tseng, C.-Y. Yang, P. Jean, P. von Ballmoos, C.-H. Lin, and M. Amman
*Astrophysical Journal*, 848, 119 (2017)

68. Enhanced gamma radiation toward the rotation axis from the immediate vicinity of extremely rotating black holes
Yoogeun Song, Hung-Yi Pu, Kouichi Hirotani, Satoki Matsushita, Albert K. H. Kong, and **Hsiang-Kuang Chang**
*Monthly Notices of the Royal Astronomical Society Letters*, 471, L135 (2017)

67. Searching for High-energy, Horizon-scale Emissions from Galactic Black Hole Transients during Quiescence
Lupin Chun-Che Lin, Hung-Yi Pu, Kouichi Hirotani, Albert K. H Kong, Satoki Matsushita, **Hsiang-Kuang Chang**, Makoto Inoue, and Pak-Hin T. Tam

*Astrophysical Journal*, 845, 40 (2017)

66. Lepton acceleration in the vicinity of the event horizon: Very-high-energy emissions from super-massive black holes
Hirotani, Kouichi; Pu, Hung-Yi; Chun-Che Lin, Lupin; Kong, Albert K. H; Matsushita, Satoki; Asada, Keiichi; **Chang, Hsiang-Kuang**; Tam, Pak-Hin T.
*Astrophysical Journal*, 845, 77 (2017)

65. Lepton acceleration in the vicinity of the event horizon: High-energy and Very-high-energy emissions from rotating black holes with various masses
Kouichi Hirotani, Hung-Yi Pu, Lupin Chun-Che Lin, **Hsiang-Kuang Chang**, Makoto Inoue, Albert K. H. Kong, Satoki Matsushita, and Pak-Hin T. Tam
*Astrophysical Journal*, 833, 142 (2016)

64. Upper limits to the number of Oort Cloud Objects based on serendipitous occultation events search in X-rays
**Hsiang-Kuang Chang**, Chih-Yuan Liu, and Jie-Rou Shang
*Monthly Notices of the Royal Astronomical Society*, 462, 1952 (2016)

63. Effects of turbulent viscosity on a rotating gas ring around a black hole: Results of numerical simulations
K. Giri, **H.-K. Chang**
*Astronomische Nachrichten*, 336, 1005 (2015)

62. The upcoming balloon campaign of the Compton Spectrometer and Imager (COSI)
J.-L. Chiu, S.E.Boggs, **H.-K.Chang**, J.A.Tomsick, A.Zoglauer, M.Amman, Y.-H.Chang, Y.Chou, P.Jean, C.Kierans, C.-H.Lin, A.Lowell, J.-R.Shang, C.-H. Tseng, P. von Ballmoos, C.-Y.Yang
*Nuclear Instruments and Methods in Physics Research A*, 784, 359 (2015)

61. Search for sub-kilometre trans-Neptunian objects using *CoRoT* asteroseismology data
Chih-Yuan Liu, Alain Doressoundiram, Franoise Roques, **Hsiang-Kuang Chang,** Lucie Maquet and Michel Auvergne
*Monthly Notices of the Royal Astronomical Society*, 446, 932 (2015)

60. Orbital motion and quasi-quantized disk around rotating neutron stars
Joan Jing Wang, **Hsiang-Kuang Chang**
*International Journal of Modern Physics D*, 23, 1450053 (2014)

59. Search for p-mode oscillations in RX J2117.1+3412
**H.-K. Chang**, I.-C. Shih, C.-Y. Liu, T. Fan, Y.-S. Wu, F. Roques, A. Doressoundiram, A. Fernandez, B. Christophe, and F. Dauny
*Astronomy and Astrophysics*, 558, A63 (2013)

58. Search for serendipitous TNO occultation in X-rays
**Hsiang-Kuang Chang**, Chih-Yuan Liu, Kuan-Ting Chen

*Monthly Notices of the Royal Astronomical Society*, 429, 1626 (2013)

57. Retrograde wind accretion -- an alternative mechanism for long spin periods of SFXTs (Corrigendum)
Jing Wang, **Hsiang-Kuang Chang**
*Astronomy and Astrophysics*, 549, C4 (2013)

56. On Spin Dependence of Relativistic Acoustic Geometry
Pu, Hung-Yi; Maiti, Ishita; Das, Tapas Kumar; **Chang, Hsiang-Kuang**
*Classical and Quantum Gravity*, 29, 245020 (2012)

55. Energy dependence of NBO in Scorpius X-1
Jing Wang, **Hsiang-Kuang Chang,** Chih-Yuan Liu
*Astronomy and Astrophysics*, 547, A74 (2012)

54. Retrograde wind accretion -- an alternative mechanism for long spin periods of SFXTs
Jing Wang, **Hsiang-Kuang Chang**
*Astronomy and Astrophysics*, 547, A27 (2012)

53. Launching and Quenching of Black Hole Relativistic Jets at Low Accretion Rate
Hung-Yi Pu, Kouichi Hirotani, **Hsiang-Kuang Chang**
*Astrophysical Journal*, 758, 113 (2012)

52. Investigation of CTA 1 with Suzaku Observation
Lupin C. C. Lin1, Jumpei Takata, Albert K. H. Kong, C. Y. Hui, Teruaki Enoto, **H. K. Chang**, Regina H. H. Huang, J. S. Liang, Shinpei Shibata and C. Y. Hwang
*Monthly Notices of the Royal Astronomical Society*, 426, 2283 (2012)

51. Morphological analysis on the coherence of kHz QPOs
J. Wang, **H.K. Chang**, C.M. Zhang, D.H. Wang, L. Chen, J.L. Qu, L.M. Song
*Astrophysics and Space Science*, 342, 357 (2012)

50. Testing the Accretion-induced Field-decay and Spin-up Model for Recycled Pulsars
J. Wang, C. M. Zhang, **H.-K. Chang**
*Astronomy and Astrophysics*, 540, A100 (2012)

49. Statistical analysis for the Q-factor of twin kHz QPOs
J.Wang, **H.-K. Chang**, C.M. Zhang, D.H.Wang, L. Chen
*Astronomische Nachrichten*, 333, 274 (2012)

48. Detection and imaging of the Crab nebula with the Nuclear Compton Telescope
M. S. Bandstra, E. C. Bellm, S. E. Boggs, D. Perez-Becker, A. Zoglauer, **H.-K. Chang**, J.-L. Chiu, J.-S. Liang, Y.-H. Chang, Z.-K. Liu, W.-C. Hung, M.-H. A. Huang, S. J. Chiang, R.-S. Run, C.-H. Lin, M. Amman, P. N. Luke, P. Jean, C. B. Wunderer
*Astrophysical Journal*, 738, 8 (2011)

47. Millisecond dips in the 2007-09 RXTE/PCA lightcurve of Sco X-1 and one possible occultation event
**H.-K. Chang**, C.-Y. Liu, K.-T. Chen
*Monthly Notices of the Royal Astronomical Society*, 411, 427 (2011)

46. Alfvén seismic vibrations of crustal solid-state plasma in quaking paramagnetic neutron star
Bastrukov, S.; Molodtsova, I.; Takata,J.; **Chang, H.-K.**; Xu, R.-X.
*Physics of Plasmas*, 17, 112114 (2010)

45. Alfvén node-free vibrations of white dwarf in the model of solid star with toroidal magnetic field
I. Molodtsova, S. I. Bastrukov, K.-T. Chen, **H.-K. Chang**
*Astrophysics and Space Science*, 327, 1 (2010)

44. Self-gravitating astrophysical mass with singular central density vibrating in fundamental mode
S. I. Bastrukov, **H.-K. Chang,** E.-H. Wu, I. V. Molodtsova
*Modern Physics Letters A*, 24, 3257 (2009)

43. Neptune migration models with one extra-planet
L.-W. Yeh, **H.-K. Chang**
*Icarus*, 204, 330 (2009)

42. Frequency spectrum of toroidal Alfven mode in a neutron star with Ferraro's form of nonhomogeneous poloidal magnetic field
S. I. Bastrukov, **H.-K. Chang,** I. V. Molodtsova, E.-H. Wu, G.-T. Chen, S.-H. Lan
*Astrophysics and Space Science*, 323, 235 (2009)

41. Surface optical response of the core-shell structured nanoparticle
Bastrukov S.I., Lai P.-Y., I.V. Molodtsova, **H.-K. Chang,** D.V. Podgainy:
*Surface Review and Letters*, 16, 5 (2009)

40. The Data Readout System of the Nuclear Compton Telescope
Wei-Che Hung, Yuan-Hann Chang, Chih-Hsun Lin, Steven E. Boggs, **Hsiang-Kuang Chang,** Mark S. Bandstra, Eric C. Bellm, Jeng-Lun Chiu, Jau-Shian Liang, Zong-Kai Liu, Daniel Perez-Becker, Cornelia B. Wunderer, Andreas Zoglauer, Ming-Huey Huang, Mark Amman, and Paul N. Luke
*IEEE Transactions on Nuclear Science*, 56, 2303 (2009)

39. Overview of the Nuclear Compton Telescope
E. C. Bellm, S. E. Boggs, M. S. Bandstra, J. D. Bowen, D. Perez-Becker, C. B. Wunderer, A. Zoglauer, M. Amman, P. N. Luke, **H.-K. Chang,** J.-L. Chiu, J.-S. Liang, Y.-H. Chang, Z.-K. Liu, W.-C. Hung, C.-H. Lin, M. A. Huang, P. Jean
*IEEE Transactions on Nuclear Science*, 56, 1250 (2009)

38. Characterizing and Correcting the Cross-Talk Effect on Depth Measurement in the NCT Detectors
Z.-K. Liu, Y.-H. Chang, S. E. Boggs, M. S. Bandstra, E. C. Bellm, J. D. Bowen, D. Perez-Becker, C. B. Wunderer, A. Zoglauer, M. Amman, P. N. Luke, **H.-K. Chang,** J.-L. Chiu, J.-S. Liang, C.-H. Lin, W.-C. Hung
*IEEE Transactions on Nuclear Science*, 56, 1210 (2009)

37. Non-thermal emissions from outer magnetospheric accelerators of middle-aged pulsars
J. Takata, **H.-K. Chang**
*Monthly Notices of the Royal Astronomical Society*, 392, 400 (2009)

36. Torsional Nodeless Vibrations of Quaking Neutron Star Restored by Combined Forces of Shear Elastic and Magnetic Field Stresses
S. I. Bastrukov, G.-T. Chen, **H.-K. Chang,** I. V. Molodtsova, D. V. Podgainy
*Astrophysical Journal*, 690, 998 (2009)

35. Millisecond Dip Events in the 2007 RXTE/PCA Data of Sco X-1 and the TNO size distribution
C.-Y. Liu, **H.-K. Chang,** J.-S. Liang, S.-K. King
*Monthly Notices of the Royal Astronomical Society (Letters)*, 388, L44 (2008)

34. Elasticity of nuclear medium as a principal macrodynamical promoter of electric pygmy dipole moment
S. Bastrukov, I. Molodtsova, D. Podgainy, S. Misicu, **H.-K. Chang**
*Physics Letters B*, 664, 258 (2008)

33. Periodicity Search of Possible X-ray Counterparts to Radio-quiet Gamma-ray Pulsar Candidates
L. C.-C. Lin, **H.-K. Chang**
*Monthly Notices of the Royal Astronomical Society*, 387, 729 (2008)

32. Eigenfrequency of nodeless elastic vibrations locked in the crust of quaking neutron stars
S. Bastrukov, **H.-K. Chang,** G.-T. Chen, I. Molodtsova
*Modern Physics Letters A*, 23, 477 (2008)

31. Particle Acceleration and Non-thermal Emission in Pulsar Outer Magnetospheric Gaps
J. Takata, **H.-K. Chang,** S. Shibata
*Monthly Notices of the Royal Astronomical Society*, 386, 748 (2008)

30. Pulse Profiles, Spectra and Polarization Characteristics of Non-thermal Emissions from the Crab-like Pulsars
J. Takata, **H.-K. Chang**
*Astrophysical Journal*, 670, 677 (2007)

29. Torsional shear oscillations in the neutron star crust driven by restoring force of elastic stresses

S. Bastrukov, **H.-K. Chang,** J. Takata, G.-T. Chen, I. Molodtsova
*Monthly Notices of the Royal Astronomical Society*, 382, 849 (2007)

28. The Phase-resolved High Energy Spectrum of the Crab Pulsar
J. J. Jia, A. P. S. Tang, J. Takata, **H.-K. Chang,** K. S. Cheng
*Advances in Space Research*, 40, 1425 (2007)

27. The Nuclear Compton Telescope (NCT) project – Scientific Goals and Expected Sensitivity
**H.-K. Chang,** S. Boggs, Y.-H. Chang
*Advances in Space Research*, 40, 1281 (2007)

26. Spheroidal and Torsional Modes of Quasistatic Shear Oscillations in the Solid Globe Models of Nuclear Physics and Pulsar Astrophysics
S. Bastrukov, **H.-K. Chang,** S. Misicu, I. Molodtsova, D. Podgainy
*International Journal of Modern Physics A*, 22, 3261 (2007)

25. Millisecond Dips in the RXTE/PCA Light Curve of Sco X-1 and TNO Occultations
**H.-K. Chang,** J.-S. Liang, C.-Y. Liu, S.-K. King
*Monthly Notices of the Royal Astronomical Society*, 378, 1287 (2007)

24. The Applications of the MHD Alfven Wave Model for kHz Quasi-periodic Oscillations
C.M. Zhang, H. X. Yin, Y. H. Zhao, **H.-K. Chang,** L.M. Song
*Astronomische Nachrichten*, 328, 491 (2007)

23. Polarization of High-Energy Emissions from the Crab Pulsar
J. Takata, **H.-K. Chang,** K. S. Cheng
*Astrophysical Journal*, 656, 1044 (2007)

22. Measuring Neutron Star Mass and Radius with Three Mass-Radius Relations
C.M. Zhang, H. X. Yin, Y. Kojima, **H.-K. Chang,** R.X. Xu, X.D. Li, B. Zhang, B. Kiziltan
*Monthly Notices of the Royal Astronomical Society*, 374, 232 (2007)

21. Occultation of X-rays from Scorpius X-1 by Small Trans-Neptunian Objects
**H.-K. Chang,** S.-K. King, J.-S. Liang, P.-S. Wu, L. C.-C. Lin, C.-J. Chiu
***Nature***, 442, 660 (2006)

20. A Two-dimensional Electrodynamical Outer Gap Model for Gamma Ray Pulsars: Gamma-ray Spectrum
J. Takata, S. Shibata, K, Hirotani, **H.-K. Chang**
*Monthly Notices of the Royal Astronomical Society*, 366, 1310 (2006)

19. Periodicity Search in the X-ray Data of RX J0007.0+7302
L. C.-C. Lin, **H.-K. Chang**
*Astrophysics and Space Science*, 297, 361 (2005)

18. Thermal Flux Fractions of Anomalous X-ray Pulsars RX J170849-400910 and 4U 0142+61
**H.-K. Chang**
*Chinese Journal of Physics*, 42, 135 (2004)

17. Electrostatic Corrections to the Equation of State for a Fully Ionized Hydrogen Atmosphere of Magnetic Neutron Stars
**H.-K. Chang**
*Chinese Journal of Physics*, 40, 395 (2002)

16. Determining the Magnetic Inclination of PSR B0656+14 from its Thermal X-ray Emission
**H.-K. Chang**
*Chinese Journal of Physics*, 39, 319 (2001)

15. X-ray Timing Analysis of PSR B1951+32 with ASCA and RXTE Data
**H.-K. Chang,** T.-F. Guo
*Chinese Journal of Physics*, 38, 429 (2000)

14. A Study of Sunspots with Phase Time and Travel Time of P-mode Waves in Acoustic Imaging
D.-Y. Chou, M.-T. Sun, **H.-K. Chang**
*Astrophysical Journal*, 532, 622 (2000)

13. In Search of Emerging Flux underneath the Solar Surface with Acoustic Imaging
**H.-K. Chang,** D.-Y. Chou, M.-T. Sun
*Astrophysical Journal (Letters)*, 526, L53 (1999)

12. Determining Emission Location and Mechanisms of High Energy Emission from Pulsars -- the Role of INTEGRAL
**H.-K. Chang,** T. Guo, M.-C. Liang, C. Ho
*Astrophysical Letters and Communications*, 38, 53 (1999)

11. Acoustic Imaging in Helioseismology
D.-Y. Chou, **H.-K. Chang,** M.-T. Sun, B. LaBonte, H.-R. Chen, S.-J. Yeh, the TON team
*Astrophysical Journal*, 514, 979 (1999)

10. Rossi X-ray Timing Explorer Observation of PSR B0656+14
**H.-K. Chang,** C. Ho
*Astrophysical Journal*, 510, 404 (1999)

9. Probing Solar Active Regions with the Phase Information of Acoustic Imaging
H.-R. Chen, D.-Y. Chou, **H.-K. Chang,** M.-T. Sun, S.-J. Yeh, B. LaBonte, the TON team
*Astrophysical Journal (Letters)*, 501, L139 (1998)

8. Ambient Acoustic Imaging in Helioseismology
**H.-K. Chang ,** D.-Y. Chou, B. LaBonte, the TON team
***Nature*,** 389, 825 (1997)

7. RXTE Observation of PSR B1951+32
**H.-K. Chang,** C. Ho
*Astrophysical Journal (Letters)*, 479, L125 (1997)

6. Optical Pulse Polarization of the Crab Pulsar
K. Chen, **H.-K. Chang,** C. Ho
*Astrophysical Journal*, 471, 967 (1996)

5. The Soft Spectrum of PSR B1509-58
**H.-K. Chang ,** K. Chen, C. Ho
*Astronomy and Astrophysics Supplement*, 120, C81 (1996)

4. Magnetic Inverse Compton Scattering above Polar Caps
**H.-K. Chang**
*Astronomy and Astrophysics*, 301, 456 (1995)

3. Pulsar Radio Emission
**H.-K. Chang,** W. Kundt
*Astrophysics and Space Science*, 209, 313 (1993)

2. Gamma-Ray Bursts from Nearby Neutron Stars
W. Kundt, **H.-K. Chang**
*Astrophysics and Space Science*, 200, 151 (1993)

1. Pulsar Nebulae
W. Kundt, **H.-K. Chang**
*Astrophysics and Space Science*, 193, 145 (1992)

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## B. Proceeding papers

48. The Compton Spectrometer and Imager Project for MeV Astronomy
J. Tomsick, S. Boggs, A. Zoglauer, H. Lazar, J. Beechert, H. Gulick, J. Roberts, T. Siegert, E. Wulf, C. Sleator, J. Grove, B. Phlips, T. Brandt, A. Smale, C. Kierans, D. Hartmann, M. Leising, M. Ajello, P. Jean, P. von Ballmoos, J. Malzac, E. Burns, C. Fryer, **H. Chang**, F. Tavecchio, and T. Takahashi
American Astronomical Society meeting #237, id. 315.01. Bulletin of the American Astronomical Society, Vol. 53, No. 1 e-id 2021n1i315p01 (01/2021)

47. The Compton Spectrometer and Imager
John Tomsick (UCB), Andreas Zoglauer (UCB), Clio Sleator (UCB), Hadar Lazar (UCB), Jacqueline Beechert (UCB), Steven Boggs (UCSD and UCB), Jarred Roberts (UCSD), Thomas Siegert (UCSD), Alex Lowell (UCSD), Eric Wulf (NRL), Eric Grove (NRL), Bernard Phlips (NRL), Terri Brandt (GSFC), Alan Smale (GSFC), Carolyn Kierans (GSFC), Eric Burns (GSFC), Dieter Hartmann (Clemson), Mark Leising (Clemson), Marco Ajello (Clemson),

Chris Fryer (LANL), Mark Amman (independent), **Hsiang-Kuang Chang** (NTHU, Taiwan), Pierre Jean (IRAP, France), Peter von Ballmoos (IRAP, France)
Astro2020: Decadal Survey on Astronomy and Astrophysics, APC white papers, no. 98; Bulletin of the American Astronomical Society, Vol. 51, Issue 7, id. 98 (arXiv: 1908.04334) (09/2019)

46. Concept study of a small Compton polarimeter to fly on a cubesat
Yi-Chi Chang, Chien-Ying Yang, Hung-Hsiang Liang, Che-Yen Chu, Jeng-Lun Chiu, Chih-Hsun Lin, Philippe Laurent, and **Hsiang-Kuang Chang**
In Proceedings of the 12th INTEGRAL conference and 1st AHEAD Gamma-ray Workshop, Geneva, Switzerland, 11-15 February 2019, Ed. C. Ferrigno, E. Bozzo, P. von Ballmoos. (arXiv: 1911.06445) (02/2019)

45. Search for sub-kilometre sized trans-Neptunian objects using MIOSOTYS observations
Liu, Chih-Yuan; Doressoundiram, Alain; Roques, Francoise; Chang, Hsiang-Kuang; Maquet, Lucie
European Planetary Science Congress 2018, held 16-21 September 2018 at TU Berlin, Berlin, Germany, id. EPSC2018-793 (09/2018)

44. The polarimetric performance of the Compton Spectrometer and Imager (COSI)
C.-Y. Yang, A. Lowell, A. Zoglauer, J. Tomsick, J.-L. Chiu, C. Kierans, C. Sleator, S. Boggs, **H.-K. Chang**, P. Jean, S. McBride, B. Mochizuki , M. Amman, P. von Ballmoos, Y.-C. Chang, C.-Y. Chu, H.-H. Liang, C.-H. Lin,
SPIE Astronomical Telescopes + Instrumentation, 2018, Austin, Texas, United States Proc. SPIE 10699, Space Telescopes and Instrumentation 2018: Ultraviolet to Gamma Ray, 106992K (6 July 2018); doi: 10.1117/12.2312556 (07/2018)

43. Search for sub-kilometre trans-Neptunian objects using all CoRoT AN1 Light-curves
Liu, C.-Y., Doressoundiram, A., Roques, F., **Chang, H.-K**., Chaintreuil, S.
European Planetary Science Congress 2017, held 17-22 September, 2017 in Riga Latvia, id. EPSC2017-237 (09/2017)

42. The Compton Spectrometer and Imager (COSI)
J.L. Chiu, S. E. Boggs, C. A. Kierans, A. Lowell, C. Sleator, J. A. Tomsick, A. Zoglauer, M. Amman, **H.K. Chang**, C.Y. Chu, C.H. Tseng, C.Y. Yang, C.h. Lin, P. Jean, P. von Ballmoos
Proceeding of the 35th International Cosmic Ray Conference - ICRC2017, Busan, Korea, 12-20 July 2017, PoS(ICRC2017)796 (07/2017)

41. The Compton Spectrometer and Imager: Results from the 2016 Super-Pressure Balloon Campaign
Lowell, Alexander; Boggs, Steven; Chiu, Jeng-Lun; Kierans, Carolyn; Sleator, Clio; Tomsick, John; Zoglauer, Andreas; Amman, Mark; **Chang, Hsiang-Kuang**; Tseng, Chao-Hsiung; Yang, Chien-Ying; Lin, Chih H.; Jean, Pierre; von Ballmoos, Peter
American Astronomical Society, HEAD meeting #16, id.103.12 (08/2017)

40. Spectral analysis of the Crab Nebula and GRB 160530A with the Compton Spectrometer and Imager

Sleator, Clio; Boggs, Steven E.; Chiu, Jeng-Lun; Kierans, Carolyn; Lowell, Alexander; Tomsick, John; Zoglauer, Andreas; Amman, Mark; **Chang, Hsiang-Kuang**; Tseng, Chao-Hsiung; Yang, Chien-Ying; Lin, Chih H.; Jean, Pierre; von Ballmoos, Peter
American Astronomical Society, HEAD meeting #16, id.304.03 (08/2017)

39. The 2016 Super Pressure Balloon flight of the Compton Spectrometer and Imager
Carolyn A. Kierans, Steven E. Boggs, Jeng-Lun Chiu, Alex Lowell, Clio C. Sleator, John A. Tomsick, Andreas Zoglauer, Mark Amman, **Hsiang-Kuang Chang**, Chao-Hsiung Tseng, Chien-Ying Yang, Chih-Hsun Lin, Pierre Jean, Peter von Ballmoos
*11th INTEGRAL Conference Gamma-Ray Astrophysics in Multi-Wavelength Perspective, 10-14 October 2016, Amsterdam, The Netherlands* (arXiv:1701.05558)

38. Benchmarking COSI's detector effects engine
Clio C. Sleator_, Steven E. Boggs, Jeng-Lun Chiu, Carolyn A. Kierans, Alex Lowell, John A. Tomsick, Andreas Zoglauer, Mark Amman, **Hsiang-Kuang Chang**, Chao-Hsiung Tseng, Chien-Ying Yang, Chih-Hsun Lin, Pierre Jean, Peter von Ballmoos
*11th INTEGRAL Conference Gamma-Ray Astrophysics in Multi-Wavelength Perspective, 10-14 October 2016, Amsterdam, The Netherlands* (arXiv:1701.05563)

37. Positional calibrations of the germanium double sided strip detectors for the Compton spectrometer and imager
A. Lowell ; S. Boggs ; J. L. Chiu ; C. Kierans ; S. McBride ; C. H. Tseng ; A. Zoglauer ; M. Amman ; **H. K. Chang** ; P. Jean ; C. H. Lin ; C. Sleator ; J. Tomsick ; P. von Ballmoos and C. Y. Yang
*Proc. SPIE* 9915, High Energy, Optical, and Infrared Detectors for Astronomy VII, 99152H (August 1, 2016); doi:10.1117/12.2233145; http://dx.doi.org/10.1117/12.2233145

36. Calibration of the Compton Spectrometer and Imager in preparation for the 2014 balloon campaign
C. A. Kierans ; S. E. Boggs ; A. Lowell ; J. Tomsick ; A. Zoglauer ; M. Amman ; J.-L. Chiu ; **H.-K. Chang** ; C.-H. Lin ; P. Jean ; P. von Ballmoos ; C.-Y. Yang ; J.-R. Shang ; C.-H. Tseng ; Y. Chou ; Y.-H. Chang
Proceedings of the SPIE, Volume 9144, id. 91443M 16 pp. (2014)

35. COSI: The Compton Spectrometer and Imager Science Program
Tomsick, John; Jean, Pierre; **Chang, Hsiang-Kuang**; Boggs, Steven; Zoglauer, A.; Von Ballmoos, Peter; Amman, Mark; Chiu, Jeng-Lun; Chang, Yuan-Hann.; Chou, Yi; Kierans, Carolyn; Lin, Chih-Hsun.; Lowell, Alex; Shang, Jie-Rou.; Tseng, Chao-Hsiung; Yang, Chien-Ying
40th COSPAR Scientific Assembly. Held 2-10 August 2014, in Moscow, Russia, Abstract PSB.1-14-14. (2014)

34. Development of the Astronomy-Themed Interdisciplinary Curriculum At Taipei First Girls' High School
Yang, S.-C.; Jin, R.; Lai, S.-P.; Kong, A.; **Chang, H.-K.**; Wu, P.-H.
ASP Conference Series, Vol. 483, p.395 (2014)

(Proceedings of a conference held 20-24 July 2013 at San Jose State University, San Jose, California, USA. Edited by James G. Manning, Mary Kay Hemenway, Joseph B. Jensen, and Michael G. Gibbs. San Francisco: Astronomical Society of the Pacific)

33. Probing The Outer Solar System Small Bodies With Stellar Occultations
Maquet, Lucie; Roques, F.; Doressoundiram, A.; Liu, C.; **Chang, H.**; Chun, S. I.
SF2A-2013: Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics. Eds.: L. Cambresy, F. Martins, E. Nuss, A. Palacios, pp.19-22 (2013)

32. Probing The Outer Solar System Small Bodies With Stellar Occultations
Maquet, Lucie; Roques, F.; Doressoundiram, A.; Liu, C.; **Chang, H.**; Chun, S. I.
American Astronomical Society, DPS meeting #45, #414.09 (2013)

31. Performance, Goals, and Status of the Upcoming Nuclear Compton Telescope Balloon Campaigns
Lowell, Alexander; Barriere, N.; Boggs, S. E.; Tomsick, J.; von Doetinchem, P.; Zoglauer, A.; Amman, M.; Luke, P.; Jean, P.; von Ballmoos, P.; **Chang, H.**; Chiu, J.; Yang, C.; Shang, J.; Lin, C. H.; Chou, Y.; Chang, Y. H.
American Astronomical Society, HEAD meeting #13, #123.06 (2013)

30. Links between Z sources and Atoll sources
J. Wang, **H.-K. Chang**
Proceedings of IAUS 290 "Feeding Compact Objects: Accretion on All Scales", C. M. Zhang, T. Belloni, M. Mendez & S. N. Zhang (eds.), p.331 (2013)

29. Prospects for the 2014/2015 Nuclear Compton Telescope balloon campaign
Lowell, A.; Boggs, S.; Zoglauer, A.; Barriere, N.; Amman, M.; Luke, P.; von Ballmoos, P.; Jean, P.; **Chang, H.-K**.; Chiu, J.-L.; Liang, J.-S.
Space Telescopes and Instrumentation 2012: Ultraviolet to Gamma Ray. Proceedings of the SPIE, Volume 8443, id. 84434U-84434U-8 (2012).

28. The Search for Trans-Neptunian Stellar Occultations Through 2 Years with MIOSOTYS
Doressoundiram, A.; Liu, C.-Y.; Roques, F.; **Chang, H.-K.**; Shih, I. C.; Dauny, F.; Fernandez, A.; Christophe, B.
Asteroids, Comets, Meteors 2012, Proceedings of the conference held May 16-20, 2012 in Niigata, Japan. LPI Contribution No. 1667, id.6036 (2012)

27. Miosotys, a new instrument to search for trans-Neptunian stellar occultations
Doressoundiram A., Liu C-Y, Roques F., **Chang H-K**, Shih I Chun, Dauny F., Boissel Y. Miosotys Team
EPSC-DPS Joint Meeting 2011, held 2-7 October 2011 in Nantes, France.
http://meetings.copernicus.org/epsc-dps2011, p.980 (2011)

26. Search For Small Trans-Neptunian Objects Using COROT Asteroseismology Lightcurves
Chih-Yuan Liu, Alain Doressoundiram, Françoise Roques, Michel Auvergne, **Hsiang-Kuang Chang**

EPSC-DPS Joint Meeting 2011, held 2-7 October 2011 in Nantes, France
http://meetings.copernicus.org/epsc-dps2011, p.614 (2011)

25. The Search for Trans-Neptunian Stellar Occultations with MIOSOTYS
Doressoundiram, A.; Roques, F.; **Chang, H.-K.**; Boissel, Y.; Shih, I. C.; Dauny, F.; Liu, C.-Y.; Miosotys Team
42nd Lunar and Planetary Science Conference, held March 7–11, 2011 at The Woodlands, Texas, LPI Contribution No. 1608, id.1669 (2011)

24. Introduction to MIOSOTYS: a multiple-object, high-speed photometer
I Chun Shih, Alain Doressoundiram, Yannick Boissel, Francoise Roques, Frederic Dauny, Paul Felenbok, Andree Fernandez, Jean Guerin, **Hsiang-Kuang Chang**, Chih-Yuan Liu
Ground-based and Airborne Instrumentation for Astronomy III. Edited by McLean, Ian S.; Ramsay, Suzanne K.; Takami, Hideki. Proceedings of the SPIE, Volume 7735, pp. 773546-773546-7 (2010)

23. Preliminary results from the Spring 2010 balloon campaign of the Nuclear Compton Telescope
Chiu, J.-L., Bellm, E., Boggs, S., **Chang, H.-K.**, Chang, Y.-H., Huang, M., Amman, M., Bandstra, M., Hung, W.-C., Liang, J.-S., Lin, C.-H., Liu, Z.-K., Luke, P., Perez-Becker, D., Run, R.-S., Wunderer, C., and Liu, Z.-K., Bandstra, M., Perez-Becker, D., Zoglauer, A.
Proc. of SPIE Vol. 7805, 780514 (2010)

22. The 2010 balloon campaign of the Nuclear Compton Telescope
Bellm, E. C., Chiu, J.-L., Boggs, S., **Chang, H.-K.**, Chang, Y.-H., Huang, M., Amman, M., Bandstra, M., Hung, W.-C., Jean, P., Liang, J.-S., Lin, C.-H., Liu, Z.-K., Luke, P. N., Perez-Becker, D., Run, R.-S., and Zoglauer, A.
Space Telescopes and Instrumentation 2010: Ultraviolet to Gamma Ray. Edited by Arnaud, Monique; Murray, Stephen S.; Takahashi, Tadayuki. Proceedings of the SPIE, Volume 7732, pp. 773224-773224-9 (2010)

21. Ground calibrations of Nuclear Compton Telescope
Chiu, J.-L., Liu, Z.-K., Bandstra, M., Bellm, E., Liang, J.-S., Perez-Becker, D., Zoglauer, A., Boggs, S., **Chang, H.-K.**, Chang, Y.-H., Huang, M., Amman, M., Chiang, S.-J., Hung, W.-C., Lin, C.-H., Luke, P., Run, R.-S., and Wunderer, C.
Space Telescopes and Instrumentation 2010: Ultraviolet to Gamma Ray. Edited by Arnaud, Monique; Murray, Stephen S.; Takahashi, Tadayuki. Proceedings of the SPIE, Volume 7732, pp. 77324H-77324H-9 (2010)

20. The Nuclear Compton Telescope (NCT): a status report after 2009 balloon flight
Ming-Huey A. Huang, Mark Amman, Mark E. Bandstra, Eric Bellm, Steven E. Boggs, Jason D. Bowen, **Hsiang-Kuang Chang**, Yuan-Hann Chang, Shueng-Jung Chiang, Jeng-Lun Chiu, Pierre Jean, Jau-Shian Liang, Chih-Hsun Lin, Zong-Kai Liu, Paul N. Luke, Daniel Perez-Becker, Ray-Shine Run, Cornelia B. Wunderer, Andreas Zoglauer
in PROCEEDINGS OF THE 31st ICRC (2009)

19. Overview of the Nuclear Compton Telescope (NCT)
ZONG-KAI LIU, YUAN-HANN CHANG, WEI-CHE HUNG, STEVEN E. BOGGS, MARK S. BANDSTRA, ERIC E. BELLM, DANIEL PEREZ-BECKER, CORNELIA B. WUNDERER, ANDREAS ZOGLAUER, MARK AMMAN, PAUL N. LUKE, **HSIANG-KUANG CHANG**, JENG-LUN CHIU, JAU-SHIAN LIANG, CHIH-HSUN LIN, MINGHUEY A. HUANG, RAY-SHINE RUN, SHUENG-JUNG CHIANG and PIERRE JEAN
in [ASTROPARTICLE, PARTICLE AND SPACE PHYSICS, DETECTORS AND MEDICAL PHYSICS APPLICATIONS, Proceedings of the 11th Conference], 785-789 (2009)

18. Energy, depth calibration, and imaging capability of nuclear compton telescope
Chiu, J.-L., Liu, Z.-K., Bandstra, M., Perez-Becker, D., Bellm, E., Zoglauer, A., Boggs, S., **Chang, H.-K.**, Chang, Y.-H., Huang, M., Amman, M., Hung, W.-C., Liang, J.-S., Lin, C.-H., Luke, P., Run, R.-S., and Wunderer, C.
in [Nuclear Science Symposium Conference Record (NSS/MIC), 2009 IEEE], 472 –476 (2009).

17. Efficiency and polarimetric calibration of the nuclear compton telescope
Bellm, E. C., Chiu, J.-L., Perez-Becker, D., Liang, J.-S., Zoglauer, A., Bandstra, M. S., Liu, Z.-K., Boggs, S. E., **Chang, H.-K.**, Chang, Y.-H., Huang, M. A., Amman, M., Hung, W.-C., Jean, P., Lin, C.-H., Luke, P. N., Run, R.-S., and Wunderer, C. B.
in [Nuclear Science Symposium Conference Record (NSS/MIC), 2009 IEEE], 444 –448 (2009).

16. The spring 2009 balloon flight of the nuclear Compton telescope
Bandstra, M., Bellm, E., Chiu, J.-L., Liang, J.-S., Liu, Z.-K., Perez-Becker, D., Zoglauer, A., Boggs, S., **Chang, H.-K.**, Chang, Y.-H., Huang, M.-H., Amman, M., Chiang, S. J., Hung, W.-C., Jean, P., Lin, C.-H., Luke, P., Run, R.-S., and Wunderer, C.
in [Nuclear Science Symposium Conference Record (NSS/MIC), 2009 IEEE], 2131 –2139 (2009).

15. Non-thermal emissions from outer magnetospheric accelerator of pulsars
J. Takata, **H.-K. Chang**
*HIGH ENERGY GAMMA-RAY ASTRONOMY: Proceedings of the 4th International Meeting on High Energy Gamma-Ray Astronomy. AIP Conference Proceedings*, Volume 1085, pp. 237-240 (2008)

14. The upcoming long duration balloon flight of the Nuclear Compton Telescope
M. E. Bandstra, E. Bellm, S. E. Boggs, J. D. Bowen, D. Perez-Becker, C. B. Wunderer, A. Zoglauer, M. Amman, P. N. Luke, **H.-K. Chang,** J.-L. Chiu, J.-S. Liang, Y.-H. Chang, Z.-K. Liu, C.-H. Lin, M. A. Huang, P. Jean
*2007 IEEE Nuclear Science Symp. Conf. Rec.*, vol. 4, pp. 2532–2537 (2007)

13. A three-dimensional model for the high-energy emissions from the Crab pulsar
J. Takata, **H.-K. Chang,** K.S. Cheng
*THE FIRST GLAST SYMPOSIUM. AIP Conference Proceedings*, v. 921, page 423 (2007)

12. Study on Polarization of High-Energy Photons from the Crab Pulsar
J. Takata, **H.-K. Chang,** K.S. Cheng
*Proceedings of the 363rd Heraeus Seminar on Neutron Stars and Pulsars, Bad Honnef*, page 120 (astro-ph/0701255) (2006)

11. Particle Acceleration in Pulsar Magnetospheres
P.-C. Hsu, K. Hirotani, **H.-K. Chang**
*Proceedings of the 363rd Heraeus Seminar on Neutron Stars and Pulsars, Bad Honnef*, page 141 (astro-ph/0612677) (2006)

10. Computation of Neutron Star Surface Emission Spectra for Arbitrary Magnetic Field Directions without Diffusion Approximation
L.-W. Yeh, G.-T. Chen, **H.-K. Chang**
*Proceedings of the 363rd Heraeus Seminar on Neutron Stars and Pulsars, Bad Honnef*, page 137 (astro-ph/0612676) (2006)

9. The BeppoSAX Phase-resolved Spectra of the Anomalous X-ray Pulsar RX J170849-400910
**H.-K. Chang**
*Proceedings of the 8th IAU Asian-Pacific Regional Meeting, Tokyo*, page 317 (2002)

8. ASCA and RXTE Upper Limits to Pulsed Emissions from PSR B1951+32
**H.-K. Chang,** T.-F. Guo
*Proceedings of Pulsar Astronomy - 2000 and Beyond, Bonn, ASP Conference Series*, 202, page 327 (2000)

7. Acoustic Imaging and Subsurface Structure of Solar Active Regions
**H.-K. Chang,** D.-Y. Chou, H.-R. Chen, the TON team
*Proceedings of ASPE98, Potsdam, ASP Conf. Series*, 184, page 171 (1998)

6. Dissipation and Emission of p-mode in the Quiet Sun from Acoustic Imaging with the TON Data
M.-T. Sun, D.-Y. Chou, **H.-K. Chang,** H.-R. Chen, S.-J. Yeh, B. LaBonte, the TON team
*Proceedings of SOHO 6 / GONG 98 Workshop, Boston*, page 657 (1998)

5. Subsurface Acoustic Images of Solar Active Regions in Different Frequencies with TON Data
**H.-K. Chang,** D.-Y. Chou, H.-R. Chen, B. LaBonte, M.-T. Sun, S.-J. Yeh, the TON team
*Proceedings of SOHO 6 / GONG 98 Workshop, Boston*, page 621 (1998)

4. Results of Acoustic Imaging with the TON Data
D.-Y. Chou, **H.-K. Chang,** H.-R. Chen, B. LaBonte, M.-T. Sun, S.-J. Yeh, the TON team
*Proceedings of SOHO 6 / GONG 98 Workshop, Boston*, page 597 (1998)

3. Acoustic Imaging and Subsurface Absorption Structure of Sunspots

**H.-K. Chang,** D.-Y. Chou, B. LaBonte, the TON team
*Proceedings of IAU Symp. 185*, page 219 (1997)

2. Spectral Studies of Magnetic Photon Splitting in the March 5 Event and SGR 1806-20
**H.-K. Chang,** K. Chen, E. E. Fenimore, C. Ho
*Proceedings of the 3rd GRB Workshop, Huntsville, AIP Conf. Proc. 384*, page 921 (1996)

1. Nearby Neutron Stars as the Sources of the Gamma-Ray Bursts
W. Kundt, **H.-K. Chang**
*AIP Conf. Proc. 307*, page 596 (1994)