

Ho Seong Hwang Curriculum Vitae

Staff Scientist	Tel : +82-42-865-2073
Korea Astronomy and Space Science Institute (KASI),	Fax : +82-42-8658-3272
776 Daedeokdae-ro, Yuseong-gu,	E-mail : hhwang@kasi.re.kr
Daejeon 34055, Republic of Korea	https://astro.kias.re.kr/~hshwang/

1. Education

- Aug. 2007:** Ph.D. in Astronomy, Seoul National University, Korea (**Advisor** : Myung Gyoon Lee)
Thesis: Dynamics of Galaxy Clusters in Wide-field Galaxy Surveys
- Feb. 2001:** B.S. in Physics, Korea Advanced Institute of Science and Technology (KAIST), Korea

2. Positions

- 2018/12 – Present:** Staff Scientist, Korea Astronomy and Space Science Institute (KASI), Korea
- 2014/09 – 2018/12:** Research Professor, Korea Institute for Advanced Study (KIAS), Korea
- 2011/10 – 2014/08:** Research Fellow, Harvard-Smithsonian Center for Astrophysics, USA
- 2009/05 – 2011/09:** Research Fellow, CEA Saclay, France
- 2007/09 – 2009/04:** Research Fellow, KIAS, Korea
- 2004/12 – 2005/04:** Visiting Research Associate, School of Physical Sciences, University of Kent, UK
- 2001/03 – 2003/02:** Teaching Assistant, Seoul National University, Korea

3. Awards

- Nov. 2016 : one of 30 Young Scientists to shine Korea (by POSTECH)
- Aug. 2007 : Seoul National University Graduate Student Research Award

4. Research Interests

- Large-scale Structures in the Universe
- Observational Cosmology
- Galaxy Formation and Evolution
- Formation of Galaxy Clusters/Groups
- Environmental Effects on Galaxy Properties
- Infrared Luminous Galaxies
- Galaxy Interactions and Mergers
- Globular Cluster Systems in Galaxies

5. References

Dr. Margaret Geller	Smithsonian Astrophysical Observatory, USA	mgeller@cfa.harvard.edu
Dr. Daniel Fabricant	Smithsonian Astrophysical Observatory, USA	dfabricant@cfa.harvard.edu
Dr. David Elbaz	CEA Saclay, France	delbaz@cea.fr
Prof. Changbom Park	Korea Institute for Advanced Study, Korea	cbp@kias.re.kr
Prof. Myung Gyoon Lee	Seoul National University, Korea	mglee@astro.snu.ac.kr

6. Observing Experience

- **Optical/Near-IR Imaging:** MMT/MMTcam, AKARI/IRC, BOAO, SOAO
- **Optical/Near-IR Spectroscopy:** Gemini-S/GMOS, MMT/Hectospec, FLWO/FAST, CTIO/R-C SPec., CFHT/MOS, AKARI/IRC
- **Mid/Far-IR, Submillimeter and Radio observations:** SMA, Herschel/PACS/SPIRE, AKARI/IRC

7. Talks in the last 2 years

7.1. Conferences / Colloquia

- 2019/03/25 “Dense Galaxy Redshift Surveys for High-redshift Universe”, Kavli IPMU, Japan (Extremely Big Eyes on the Early Universe)
- 2019/03/12 “Mapping the Galaxy Distribution in and around Galaxy Clusters”, ASIAA, Taiwan (Panchromatic Panoramic Studies of Galaxy Clusters: from HSC to PFS and ULTIMATE)
- 2019/02/14 “The KIAS Redshift Survey of Nearby Galaxy Groups and Clusters with MMT/Hectospec”, KASI, Korea (K-GMT Science Program Users Meeting 2019)
- 2019/01/23 “Combination of Deep Imaging and Spectroscopic Surveys of Galaxy Clusters”, Yonsei University, Korea (Galaxy Formation Workshop)
- 2019/01/16 “Redshift Surveys of Galaxy Clusters with Weak-lensing Maps”, KASI, Korea (EAO Subaru Science Workshop 2019)
- 2018/11/29 “An Infrared/Submillimeter View of the Evolution of Star-forming Galaxies”, Tsinghua University, China (Tsinghua Center for Astrophysics Seminar)
- 2018/11/22 “An Infrared/Submillimeter View of the Evolution of Star-forming Galaxies”, Seoul National University, Korea (Astronomy Colloquium Talk)
- 2018/11/09 “HectoMAP and Horizon Run 4: Statistics of cosmic voids in the real and simulated universe”, KIAS, Korea (The 8th KIAS Workshop on Cosmology and Structure Formation)
- 2018/10/05 “Testing the Standard Model of Cosmology with Large-scale Structures in the Real and Simulated Universe”, University of Seoul, Korea (Physics Colloquium Talk)
- 2018/09/14 “The KIAS Redshift Survey of Nearby Galaxy Groups and Clusters: Galaxy Luminosity Function”, KASI, Korea (Workshop on Environmental Effects on Galaxies in Groups and Clusters)
- 2018/08/16 “The JCMT dust and gas In Nearby Galaxies Legacy Exploration (JINGLE): Current Status”, KASI, Korea (2018 Radio telescope User’s Meeting)
- 2018/08/07 “HectoMAP and Horizon Run 4: Statistics of Cosmic Voids in the Real and Simulated Universe”, KASI, Korea (5th Korea-Japan Workshop on Dark Energy: Starobinsky’s Universe)
- 2018/06/26 “Environmental Dependence of Galaxy Properties in the Framework of the Cosmic Web”, Naksan Beach Hotel, Korea (Galaxies A to Z Workshop)
- 2018/06/20 “Environmental Dependence of Galaxy Properties in the Framework of the Cosmic Web”, Sejong University, Korea (SDSS Collaboration Meeting 2018)
- 2018/05/31 “Environmental Dependence of Galaxy Properties in the Framework of the Cosmic Web”, Chungnam National University, Korea (Astronomy Colloquium Talk)
- 2018/05/18 “Demise of faint satellites around isolated early-type galaxies”, University of Edinburgh, UK (SPINE Farewell Meeting)
- 2018/05/16 “Mapping the Distribution of Galaxies at Intermediate Redshifts: Galaxy Clusters and Large-scale Structure of the Universe”, University of Edinburgh, UK (ROE Colloquium)
- 2018/04/18 “The KIAS Redshift Survey of Nearby Galaxy Groups and Clusters: Galaxy Luminosity Function”, Resom Forest Resort, Korea (KASI-YONSEI Galaxy Cluster and Cosmology Workshop)
- 2018/03/22 “ALMA-related Science at KIAS”, KIAS, Korea (ALMA Town Hall Meeting 2018)
- 2018/02/01 “Current Status of JINGLE”, Seoul National University, Korea (JCMT Users Meeting 2018)
- 2018/01/30 “JINGLE Overview”, Seoul National University, Korea (JINGLE team meeting 2018)
- 2018/01/26 “Environmental Dependence of Galaxy Properties in the Framework of the Cosmic Web”, Novotel Ambassador Hotel, Korea (New Frontiers in Galaxy Morphology Studies)
- 2018/01/15 “Current Status of SDSS-IV/V and DESI”, High 1 Resort, Korea (The 7th Survey Science Group Workshop)

7.2. Public Talks

25. 2019/04/21 “Who protects our Milky Way?”, Gwacheon National Science Museum, Korea (Happy Science Festival)
24. 2018/12/12 “Where am I in the vast Universe?”, Ancheon Middle School in Jinan-gun, Korea

23. 2018/08/17 “Cosmic Address”, Duckshin High School in Ganghwa Island, Korea (The Mobile Science Museum)

22. 2018/03/20 “Astronomy: Literature of a Night Sky”,
Gwacheon National Science Museum, Korea (Science Academy for Seniors)

8. List of Publication

- 136 refereed papers in total: 3 submitted, 17 as first author, 26 as second author, and 90 as co-author

8.1. Refereed Publications, Submitted

3. **Evolution of star formation rate-density relation over cosmic time in a simulated universe: the observed reversal reproduced,**
Hwang, H. S., Shin, J., Song, H.,
2019, MNRAS, submitted
2. **Sunyaev-Zel’dovich detection of the galaxy cluster Cl J1449+0856 at $z = 1.99$: the pressure profile in uv space,**
Gobat, R., et al. (**Hwang, H. S.**),
2019, A&A, submitted
1. **Constraining Cosmology with Big Data Statistics of Cosmological Graphs ,**
Hong, S., Jeong, D., **Hwang, H. S.**, et al.,
2019, ApJ, submitted

8.2. Refereed Publications, First Author

17. **HectoMAP and Horizon Run 4: Dense Structures and Voids in the Real and Simulated Universe,**
Hwang, H. S., Geller, M. J., Park, C., Fabricant, D. G., Kurtz, M. J., Rines, K. J., Kim, J., Diaferio, A., et al.,
2016, ApJ, 818, 106
16. **Comparing Dense Galaxy Cluster Redshift Surveys with Weak Lensing Maps,**
Hwang, H. S., Geller, M. J., Diaferio, A., Rines, J. K., Zahid, J.,
2014, ApJ, 797, 106
15. **Dust Properties of Local Dust-Obscured Galaxies with the Submillimeter Array,**
Hwang, H. S., Andrews, S. M., Geller, M. J.,
2013, ApJ, 777, 38
14. **Dust-Obscured Galaxies in the Local Universe,**
Hwang, H. S., Geller, M. J.,
2013, ApJ, 769, 116
13. **SHELS: Optical Spectral Properties of WISE 22 μm -selected Galaxies,**
Hwang, H. S., Geller, M. J., Kurtz, M., Dell’Antonio, I., Fabricant, D.,
2012, ApJ, 758, 25
12. **A WISE View of a Nearby Supercluster A2199,**
Hwang, H. S., Geller, M. J., Diaferio, A., Rines, K.,
2012, ApJ, 752, 64
11. **Activity in galactic nuclei of cluster and field galaxies in the local universe,**
Hwang, H. S., Park, C., Elbaz, D., Choi, Y.-Y.,
2012, A&A, 538, 15
10. **GOODS-Herschel: the impact of galaxy-galaxy interactions on the far-infrared properties of galaxies,**
Hwang, H. S., Elbaz, D., Dickinson, M., Charmandaris, V., Daddi, E., GOODS-Herschel team,
2011, A&A, 535, 60
9. **Evolution of Dust Temperature of Galaxies through Cosmic Time as seen by Herschel,**
Hwang, H. S., Elbaz, D., Magdis, G. E., Daddi, E., Symeonidis, M., PEP team, HerMES team, AKARI team
2010, MNRAS, 409, 75
8. **Environmental Dependence of Local Luminous Infrared Galaxies,**
Hwang, H. S., Elbaz, D., Lee, J. C., Jeong, W.-S., Park, C., Lee, M. G., Lee, H. M.,
2010, A&A, 522, 33

7. **Orbital Dependence of Galaxy Properties in Satellite Systems of Galaxies,**
Hwang, H. S., Park, C.,
2010, ApJ, 720, 522
6. **Galaxy Activity in Merging Binary Galaxy Clusters,**
Hwang, H. S., Lee, M. G.,
2009, MNRAS, 397, 2111
5. **Evidence for Morphology and Luminosity Transformation of Galaxies at High Redshifts,**
Hwang, H. S., Park, C.,
2009, ApJ, 700, 791
4. **Galaxy Orbits for Galaxy Clusters in Sloan Digital Sky Survey and 2dF Galaxy Redshift Survey,**
Hwang, H. S., Lee, M. G.,
2008, ApJ, 676, 218
3. **The Globular Cluster System of M60 (NGC 4649). II. Kinematics of the Globular Cluster System,**
Hwang, H. S., Lee, M. G., Park, H. S., Kim, S. C., Park, J.-H., Sohn, Y.-J., Lee, S.-G., Rey, S.-C., et al.
2008, ApJ, 674, 869
2. **Searching for Rotating Galaxy Clusters in SDSS and 2dFGRS,**
Hwang, H. S., Lee, M. G.,
2007, ApJ, 662, 236
1. **The ultraluminous and hyperluminous infrared galaxies in the SDSS, 2dFGRS and 6dFGS,**
Hwang, H. S., Serjeant, S., Lee, M. G., Lee, K. H., White, G. J.,
2007, MNRAS¹, 375, 115

8.3. *Refereed Publications, Second Author*

26. **A Redshift Survey of the Nearby Galaxy Cluster Abell 2107: Global Rotation of the Cluster and its Connection to Large-scale Structures in the Universe,**
Song, H., Hwang, H. S., Park, C., Smith, R., Einasto, M.,
2018, ApJ, 869, 124
25. **A Study of Environmental Effects on Galaxy Spin using MaNGA data,**
Lee, J. C., Hwang, H. S., Chung, H.,
2018, MNRAS, 477, 1567
24. **Demise of Faint Satellites around Isolated Early-type Galaxies,**
Park, C., Hwang, H. S., Park, H., Lee, J. C.,
2018, NatAs², 2, 162
23. **Star Formation Activity of Barred Spiral Galaxies,**
Kim, E., Hwang, H. S., Chung, H., Lee, G.-H., Park, C., Cervantes Sodi, B., Kim, S. S.,
2017, ApJ, 845, 83
22. **A Redshift Survey of the Nearby Galaxy Cluster Abell 2199: Comparison of the Spatial and Kinematic Distributions of Galaxies with the Intracluster Medium,**
Song, H., Hwang, H. S., Park, C., Tamura, T.,
2017, ApJ, 842, 88
21. **The Fastest Galaxy Evolution in an Unbiased Compact Group Sample with WISE,,**
Lee, G.-H., Hwang, H. S., Sohn, J., Lee, M. G.,
2017, ApJ, 835, 280
20. **To the Edge of M87 and Beyond: Spectroscopy of Intracluster Globular Clusters and Ultra Compact Dwarfs in the Virgo Cluster,**
Ko, Y., Hwang, H. S., et al.,
2017, ApJ, 835, 212
19. **A Submillimeter Continuum Survey of Local Dust-Obscured Galaxies,**
Lee, J. C., Hwang, H. S., Lee, G.-H.,
2016, ApJ, 833, 188

¹MNRAS: Monthly Notices of the Royal Astronomical Society

²NatAs: Nature Astronomy

18. **SHELS: Complete Redshift Surveys of Two Widely Separated Fields**,
Geller, M. J., **Hwang, H. S.**, Dell'Antonio, I., Zahid, H. J., Kurtz, M. J., Fabricant, D. G.,
2016, ApJS, 224, 11
17. **Compact Groups of Galaxies with Complete Spectroscopic Redshifts in the Local Universe**,
Sohn, J., **Hwang, H. S.**, Geller, M. J., Diaferio, A., Rines, K. J., Lee, M. G., Lee, G.-H.,
2015, JKAS³, 48, 381
16. **Schwarzschild Lecture 2014: HectoMAPping the Universe**, ,
Geller, M. J., **Hwang, H. S.**,
2015, AN⁴, 336, 428
15. **Galaxy Evolution in the Mid-infrared Green Valley: a Case of the A2199 Supercluster**,
Lee, G.-H., **Hwang, H. S.**, Lee, M. G., Sohn, J., Shim, H., Diaferio, A.,
2015, ApJ, 800, 80
14. **The Number Density of Quiescent Compact Galaxies at Intermediate Redshift**,
Damjanov, I., **Hwang, H. S.**, Chilingarian, I., Geller, M. J.,
2014, ApJ, 793, 39
13. **Tracing Recent Star Formation of Red Early-type Galaxies out to $z \sim 1$** ,
Ko, J., **Hwang, H. S.**, Im, M., Le Borgne, D., Lee, J. C., Elbaz, D.,
2014, ApJ, 791, 134
12. **SHELS: A Complete Galaxy Redshift Survey with $R \leq 20.6$** , ,
Geller, M. J., **Hwang, H. S.**, Fabricant, D. G., Kurtz, M. J., Dell'Antonio, I. P., Zahid, J.,
2014, ApJS⁵, 213, 35
11. **A Redshift Survey of the Strong Lensing Cluster Abell 383**,
Geller, M. J., **Hwang, H. S.**, Diaferio, A., Kurtz, M., Coe, D., Rines, J. K.,
2014, ApJ, 783, 52
10. **The Calibration of Star Formation Rate Indicators for WISE Selected Galaxies**,
Lee, J. C., **Hwang, H. S.**, Ko, J.,
2013, ApJ, 774, 62
9. **Activity in Galactic Nuclei of Compact Group Galaxies in the Local Universe**,
Sohn, J., **Hwang, H. S.**, Lee, M. G., Lee, G.-H., Lee, J. C.,
2013, ApJ, 771, 106
8. **The Mid-infrared and Near-Ultraviolet Excess Emissions of Quiescent Galaxies on the Red Sequence**,
Ko, J., **Hwang, H. S.**, Lee, J. C., Sohn, Y.-J.,
2013, ApJ, 767, 90
7. **AKARI Near-Infrared Spectroscopy of Luminous Infrared Galaxies**,
Lee, J. C., **Hwang, H. S.**, Lee, M. G., Kim, M., Lee, J. H.,
2012, ApJ, 756, 95
6. **Optical spectral classification of southern ultraluminous infrared galaxies**,
Lee, J. C., **Hwang, H. S.**, Lee, M. G., Kim, M., Kim, S. C.,
2011, MNRAS, 414, 720
5. **AKARI Near-Infrared Spectroscopy of SDSS-selected Blue Early-type Galaxies**,
Lee, J. H., **Hwang, H. S.**, Lee, M. G., Lee, J. C., Matsuhara, H.,
2010, ApJ, 719, 1946
4. **Herschel Unveils a Puzzling Uniformity of Distant Dusty Galaxies**,
Elbaz, D., **Hwang, H. S.**, Magnelli, B., Daddi, E., Aussel, H., PEP team, HerMES team,
2010, A&A⁶, 518, L29
3. **Interactions of Galaxies in the Galaxy Cluster Environment**,
Park, C., **Hwang, H. S.**,
2009, ApJ, 699, 1595
2. **Wide-Field Survey of Globular Clusters in M31. II. Kinematics of the Globular Cluster System**,
Lee, M. G., **Hwang, H. S.**, Kim, S. C., Park, H. S., Geisler, D., Sarajedini, A., & Harris, W.E.,
2008, ApJ, 674, 886

³JKAS: Journal of Korean Astronomical Society

⁴AN: Astronomische Nachrichten

⁵ApJS: The Astrophysical Journal Supplement Series

⁶A&A: Astronomy & Astrophysics

1. **The Globular Cluster System of M60 (NGC 4649). I. CFHT MOS Spectroscopy and Database**, Lee, M. G., **Hwang, H. S.**, Park, H. S., Park, J.-H., Kim, S. C., Sohn, Y.-J., Lee, S.-G., Rey, S.-C., et al. 2008, ApJ, 674, 857

8.4. *Refereed Publications, Co-Author*

90. **The East Asian Observatory SCUBA-2 Survey of the COSMOS Field: Unveiling 1147 Bright Submillimeter Sources across 2.6 square degrees**, Simpson, J. M. et al. (**Hwang, H. S.**), 2019, ApJ, in press
89. **JINGLE, a JCMT legacy survey of dust and gas for galaxy evolution studies: II. SCUBA-2 850 μm data reduction and dust flux density catalogues**, Smith, M. W. L. et al. (**Hwang, H. S.**), 2019, MNRAS, 486, 4166
88. **The Fifteenth Data Release of the Sloan Digital Sky Surveys: First Release of MaNGA Derived Quantities, Data Visualization Tools and Stellar Library**, SDSS Collaboration (**Hwang, H. S.**), 2019, ApJS, 240, 23
87. **Galaxies flowing in the oriented saddle frame of the cosmic web**, Kraljic, K. et al. (**Hwang, H. S.**), 2019, MNRAS, 483, 3227
86. **The Effect of Galaxy Interactions on Molecular Gas Properties**, Pan, H.-A. et al. (**Hwang, H. S.**), 2018, ApJ, 868, 132
85. **JINGLE, a JCMT legacy survey of dust and gas for galaxy evolution studies: I. Survey overview and first results**, Saintonge, A. et al. (**Hwang, H. S.**), 2018, MNRAS, 481, 3497
84. **Scuba-2 Ultra Deep Imaging EAO Survey (STUDIES) II: Structural Properties and Near-Infrared Morphologies of Faint Submillimeter Galaxies**, Chang, Y.-Y. et al. (**Hwang, H. S.**), 2018, ApJ, 865, 103
83. **Wobbling Galaxy Spin Axes in Dense Environments**, Lee, J., Kim, S., Jeong, H., Smith, R., Choi, H., **Hwang, H. S.**, Joo, S.-J., Kim, H.-S., Lee, Y., Yi, S. K., 2018, ApJ, 864, 69
82. **Inside a Beehive: the Multiple Merging Processes in the Galaxy Cluster Abell 2142**, Liu, A., Yu, H., Diaferio, A., Tozzi, P., **Hwang, H. S.**, Umetsu, K., Okabe, N., Yang, L.-L., 2018, ApJ, 863, 102
81. **Nuclear starburst activity induced by non-axisymmetric bulges in spiral galaxies**, Kim, E., Kim, S. S., Choi, Y.-Y., Lee, G.-H., de Grijs, R., Lee, M. G., **Hwang, H. S.**, 2018, MNRAS, 479, 562
80. **HeCS-red: Dense Hectospec Surveys of redMaPPer-Selected Clusters**, Rines, K. J., Geller, M. J., Diaferio, A., **Hwang, H. S.**, Sohn, J., 2018, ApJ, 682, 172
79. **Evolution of Late-type Galaxies in Cluster Environment: Effects of High-speed Multiple Encounters with Early-type Galaxies**, Hwang, J.-S., Park, C., Banerjee, A., **Hwang, H. S.**, 2018, ApJ, 856, 160
78. **The HectoMAP Cluster Survey - I. redMaPPer Clusters**, Sohn, J., Geller, M. J., Rines, K. J., **Hwang, H. S.**, Utsumi, Y., Diaferio, A., 2018, ApJ, 856, 172
77. **The Fourteenth Data Release of the Sloan Digital Sky Survey: First Spectroscopic Data from the extended Baryon Oscillation Sky Survey and from the second phase of the Apache Point Observatory Galactic Evolution Experiment**,

- SDSS Collaboration (Hwang, H. S.),
2018, ApJS, 235, 42
76. **The HectoMAP Cluster Survey - II. X-ray Clusters**,
Sohn, J., Chon, G., Böhringer, H., Geller, M. J., Diaferio, A., Hwang, H. S., Utsumi, Y., Rines, K. J.,
2018, ApJ, 855, 100
75. **hCOSMOS: a dense spectroscopic survey of $r \leq 21.3$ galaxies in the COSMOS field**,
Damjanov, I., Zahid, H. J., Geller, M. J., Fabricant, D. G., Hwang, H. S.,
2018, ApJS, 234, 21
74. **The surprisingly large dust and gas content of quiescent galaxies at $z > 1.4$** ,
Gobat, R., et al. (Hwang, H. S.),
2017, NatAs, 2, 239
73. **COSMOS2015 photometric redshifts probe the impact of filaments on galaxy properties**,
Laigle, C., Pichon, C., et al. (Hwang, H. S.),
2018, MNRAS, 474, 5437
72. **Galaxy evolution in the metric of the Cosmic Web**,
Kraljic, K., et al. (Hwang, H. S.),
2018, MNRAS, 474, 547
71. **The Thirteenth Data Release of the Sloan Digital Sky Survey: First Spectroscopic Data from the SDSS-IV Survey MAPPING Nearby Galaxies at Apache Point Observatory**,
SDSS Collaboration (Hwang, H. S.),
2017, ApJS, 233, 25
70. **An imperfectly passive nature: Bright sub-millimeter emission from dust-obscured star formation in the $z=3.717$ "passive" system ZF20115**,
Simpson, J. M., et al. (Hwang, H. S.),
2017, ApJL, 844, 10
69. **Galaxy evolution in merging clusters. The passive core of the "Train Wreck" cluster of galaxies, A520**,
Deshev, B., et al. (Hwang, H. S.),
2017, A&A, 607, 131
68. **Clustering of Extremely Red Objects in the Subaru GTO 2deg² Field**,
Shin, J., Shim, H., Hwang, H. S., Ko, J., et al.,
2017, JKAS, 50, 60
67. **Sloan Digital Sky Survey IV: Mapping the Milky Way, Nearby Galaxies and the Distant Universe**,
SDSS Collaboration (Hwang, H. S.),
2017, AJ, 154, 28
66. **The Dependence of the Mass-Metallicity Relation on Large Scale Environment**,
Wu, P.-F., Zahid, H. J., Hwang, H. S., Geller, M.,
2017, MNRAS, 468, 1881
65. **Dependence of Cluster Galaxy Properties on Dynamical State of Host Clusters**,
Kim, J.-W., Ko, J., Hwang, H. S., et al.,
2017, ApJ, 836, 105
64. **Separating Galaxies from the Cluster Dark Matter Halo in Abell 611**,
Monna, A., Seitz, S. et al. (Hwang, H. S.),
2017, MNRAS, 465, 4589
63. **The Scaling of Stellar Mass and Central Stellar Velocity Dispersion for Quiescent galaxies at $z < 0.7$** ,
Zahid, H. J., Geller, M., Fabricant, D., Hwang, H. S.,
2016, ApJ, 832, 203
62. **Compact E+A Galaxies as a Progenitor of Massive Compact Quiescent Galaxies at $0.2 < z < 0.8$** ,
Zahid, H. J., et al. (Hwang, H. S.),
2016, ApJ, 831, 146
61. **Catalogs of Compact Groups of Galaxies from the Enhanced SDSS DR12**,
Sohn, J., Geller, M. J., Hwang, H. S., Zahid, H. J., Lee, M. G.,
2016, ApJS, 225, 23

60. **The Stellar Mass Fundamental Plane and Compact Quiescent Galaxies at $z < 0.6$,**
Zahid, H. J., Damjanov, I., Geller, M. J., **Hwang, H. S.**, Fabricant, D. G.
2016, ApJ, 821, 101
59. **Stellar Populations of Early-type Galaxies with Mid-infrared Excess Emission,**
Ko, J., Chung, H., **Hwang, H. S.**, Lee, J. C.
2016, ApJ, 820, 132
58. **HeCS-SZ: The Hectospec Survey of Sunyaev-Zeldovich Selected Clusters,**
Rines, K. J., Geller, M. J., Diaferio, A., **Hwang, H. S.**,
2016, ApJ, 819, 63
57. **The Environment of Massive Quiescent Compact Galaxies at $0.1 < z < 0.4$ in the COSMOS Field,**
Damjanov, I., Geller, M. J., Zahid, H. J., **Hwang, H. S.**,
2015, ApJ, 815, 104
56. **SHELS: A Rise in the Ionizing Photons in Star-forming Galaxies between $0.2 < z < 0.6$,**
Kewley, L., Zahid, H. J., Geller, M. J., Dopita, M., **Hwang, H. S.**, Fabricant, D.,
2015, ApJL, 812, 20
55. **The satellite content and quenching of star formation in galaxy groups at $z \sim 1.8$,**
Gobat, R., Daddi, E. et al. (**Hwang, H. S.**),
2015, A&A, 581, 56
54. **Quiescent Compact Galaxies at Intermediate Redshift in the COSMOS field. I. Number Density,**
Damjanov, I., Geller, M. J., Zahid, H. J., **Hwang, H. S.**,
2015, ApJ, 806, 158
53. **GOODS-Herschel : Star Formation, Dust Attenuation and the FIR-Radio Correlation on the Main Sequence of Star-Forming Galaxies up to $z \sim 4$,**
Pannella, M., Elbaz, D., Daddi, E., Dickinson, M., **Hwang, H. S.**, et al.,
2015, ApJ, 807, 141
52. **GOODS-Herschel: resolving the Cosmic Infrared Background by pushing Herschel to its faintest limit up to $500 \mu\text{m}$,**
Leiton, R., Elbaz, D., Okumura, K., **Hwang, H. S.**, et al.,
2015, A&A, 579, 93
51. **Constraining the galaxy mass content in the core of A383: first case study using velocity dispersion measurements for individual cluster members,**
Monna, A., Seitz, S. et al. (**Hwang, H. S.**),
2015, MNRAS, 447, 1224
50. **The Double Galaxy Cluster Abell 2465 II. Star Formation in the Cluster, ,**
Wegner, G. A., Chu, D. S., **Hwang, H. S.**,
2015, MNRAS, 447, 1126
49. **Regularity underlying complexity: a redshift-independent description of the continuous variation of galaxy-scale molecular gas properties in the mass-star formation rate plane,**
Sargent, M., Daddi, E., Bethermin, M., Aussel, H., Magdis, G., **Hwang, H. S.**, et al.,
2014, ApJ, 793, 19
48. **The Universal Relation of Galactic Chemical Evolution: The Origin of the Mass-Metallicity Relation,**
Zahid, J., Dima, G., Kudritzki, R., Kewley, L., Geller, M. J., **Hwang, H. S.**,
2014, ApJ, 791, 130
47. **Measuring Galaxy Velocity Dispersions with Hectospec,**
Fabricant, D., Chilingarian, I., **Hwang, H. S.**, Kurtz, M., Geller, M. J., Dell'Antonio, I., Rines, K.,
2013, PASP, 125, 1362
46. **Intermediate Redshift Massive Compact Galaxies,**
Damjanov, I., Chilingarian, I., **Hwang, H. S.**, Geller, M. J.,
2013, ApJL, 775, 48
45. **The Chemical Evolution of Star-Forming Galaxies Over the Last 11 Billion Years,**
Zahid, J., Geller, M. J., Kewley, L., **Hwang, H. S.**, Fabricant, D., Kurtz, M.,
2013, ApJL⁷, 771, 19

⁷ApJL: The Astrophysical Journal Letters

44. **Release of the deepest Herschel-PACS far-infrared survey: number counts and infrared luminosity functions from combined PEP/GOODS-H observations,**
Magnelli, B., Popesso, P., Berta, S., Pozzi, F, PEP/GOODS-H team (**Hwang, H. S.**),
2013, A&A, 553, 132
43. **A Survey for Planetary Nebulae in M31 Globular Clusters,**
Jacoby, G. H., Ciardullo, R., De Marco, O., Lee, M. G., Herrmann, K. A., **Hwang, H. S.**, et al.,
2013, ApJ, 769, 10
42. **The Herschel census of infrared SEDs through cosmic time,**
Symeonidis, M., Vaccari, M., Berta, S., et al. (**Hwang, H. S.**),
2012, MNRAS, 431, 2317
41. **Panchromatic Spectral Energy Distributions of Herschel Sources,**
Berta, S., Lutz, D., Santini, P., Wuyts, S., Rosario, D., et al. (**Hwang, H. S.**),
2013, A&A, 551, 100
40. **Widespread and Hidden Active Galactic Nuclei in Star-forming Galaxies at redshift > 0.3,**
Juneau, S., Dickinson, M., Bournaud, F., et al. (**Hwang, H. S.**),
2013, ApJ, 764, 176
39. **GOODS-Herschel: Separating High redshift Active Galactic Nuclei and Star Forming Galaxies using Infrared Color Diagnostics,**
Kirkpatrick, A., Pope, A., GOODS-Herschel team (**Hwang, H. S.**),
2013, ApJ, 763, 123
38. **GOODS-Herschel: radio-excess signature of hidden AGN activity in distant star-forming galaxies,**
Del Moro, A., Alexander, D. M., Mullaney, J. R., GOODS-Herschel team (**Hwang, H. S.**),
2012, A&A, 549, 59
37. **The Evolving Interstellar Medium of Star Forming Galaxies since $z=2$ as Probed by Their Infrared Spectral Energy Distributions,**
Magdis, G. E., Daddi, E., Bethermin, M., GOODS-Herschel team (**Hwang, H. S.**),
2012, ApJ, 760, 6
36. **GOODS-Herschel: Impact of Active Galactic Nuclei and Star Formation Activity on Infrared Spectral Energy Distributions at High Redshift,**
Kirkpatrick, A., Pope, A., GOODS-Herschel team (**Hwang, H. S.**),
2012, ApJ, 759, 139
35. **The Globular Cluster System of NGC 4636 and Formation of Globular Clusters in gE Galaxies,**
Park, H. S., Lee, M. G., **Hwang, H. S.**, Kim, S. C., Arimoto, N., Yamada, Y., Tamura, N., Onodera, M.,
2012, ApJ, 759, 116
34. **Evidence for a wide range of UV obscuration in $z \sim 2$ dusty galaxies from the GOODS-Herschel survey,**
Penner, K., Dickinson, M., Pope, A., Dey, A., GOODS-Herschel team (**Hwang, H. S.**),
2012, ApJ, 759, 28
33. **GOODS-Herschel: Ultra-deep XMM-Newton observations reveal AGN/star-formation connection,**
Rovilos, E., Comastri, A., Gilli, R., Georgantopoulos, I., GOODS-Herschel team (**Hwang, H. S.**),
2012, A&A, 546, 58
32. **The spin of late-type galaxies at high redshift,**
Cervantes-Sodi, B., Hernandez, X., **Hwang, H. S.**, Park, C., Le Borgne, D.,
2012, MNRAS, 426, 1606
31. **SUBARU Spectroscopy of the Globular Clusters in the Virgo Giant Elliptical Galaxy M86,**
Park, H. S., Lee, M. G., **Hwang, H. S.**,
2012, ApJ, 757, 184
30. **GOODS-Herschel & CANDELS: The Morphologies of Ultraluminous Infrared Galaxies at $z \sim 2$,**
Kartaltepe, J., Dickinson, M., GOODS-Herschel team (**Hwang, H. S.**), CANDELS team,
2012, ApJ, 757, 23
29. **GOODS-Herschel: dust attenuation properties of UV selected high redshift galaxies,**
Buat, V., Noll, S., Burgarella, D., GOODS-Herschel team (**Hwang, H. S.**),
2012, A&A, 545, 141
28. **The Herschel Multi-tiered Extragalactic Survey: HerMES,**
Oliver, S. J., Bock, J., HerMES team (**Hwang, H. S.**),
2012, MNRAS, 424, 1614

27. **Do bars trigger activity in galactic nuclei?**
Lee, G. H., Woo, J.-H., Lee, M. G., **Hwang, H. S.**, Lee, J. C., Sohn, J., Lee, J. H.,
2012, ApJ, 750, 141
26. **A Herschel view of the far-infrared properties of submillimetre galaxies,**
Magnelli, B., Lutz, D., Santini, P., Saintonge, A., Berta, S., PEP/HerMES team (**Hwang, H. S.**),
2012, A&A, 539, 155
25. **AKARI Observation of the NEP Supercluster at $z=0.087$: mid-infrared view of transition galaxies,**
Ko, J., Im, M., Lee, H. M., Lee, M. G., Kim, S. J., Shim, H., Jeon, Y., **Hwang, H. S.**, et al.,
2012, ApJ, 745, 181
24. **The evolution of the star formation activity per halo mass up to redshift ~ 1.6 as seen by Herschel,**
Popesso, P., Biviano, A., PEP team, GOODS-Herschel team (**Hwang, H. S.**),
2012, A&A, 537, 58
23. **GOODS-Herschel: The far-infrared view of star formation in AGN host galaxies since $z \sim 3$,**
Mullaney, J. R., Pannella, M., Daddi, E., Alexander, D. M., GOODS-Herschel team (**Hwang, H. S.**),
2012, MNRAS, 419, 95
22. **GOODS-Herschel Measurements of the Dust Attenuation of Typical Star-Forming Galaxies at High Redshift: Observations of Ultraviolet-selected Galaxies at $z \sim 2$,**
Reddy, N., Dickinson, M., Elbaz, D., Morrison, G., Giavalisco, M., GOODS-Herschel team (**Hwang, H. S.**),
2012, ApJ, 744, 154
21. **GOODS-Herschel: Gas-to-dust mass ratios and CO-to-H₂ conversion factors in normal and starbursting galaxies at high- z ,**
Magdis, G. E., Daddi, E., Elbaz, D., Sargent, M., GOODS-Herschel team (**Hwang, H. S.**),
2011, ApJ, 740, L15
20. **GOODS-Herschel: A population of 24 μm dropout sources at $z < 2$,**
Magdis, G. E., Elbaz, D., Dickinson, M., **Hwang, H. S.**, GOODS-Herschel team,
2011, A&A, 534, 15
19. **GOODS-Herschel: an infrared main sequence for star-forming galaxies,**
Elbaz, D., Dickinson, M., **Hwang, H. S.**, Diaz-Santos, T., Magdis, G., GOODS-Herschel team,
2011, A&A, 533, 119
18. **GOODS-Herschel: evidence for a UV bump in galaxies at $z > 1$,**
Buat, V., Giovannoli, E., Heinis, S., GOODS-Herschel team (**Hwang, H. S.**),
2011, A&A, 533, 93
17. **Quantifying Galactic Morphological Transformations in the Cluster Environment,**
Cervantes-Sodi, B., Park, C., Hernandez, X., **Hwang, H. S.**,
2011, MNRAS, 414, 587
16. **HerMES: LBGs individually detected at $0.7 < z < 2.0$ in GOODS-N with Herschel/SPIRE,**
Burgarella, D., Heinis, S., Magdis, G., HerMES team (**Hwang, H. S.**),
2011, ApJ, 734, L12
15. **Merging Galaxy Cluster Abell 2255 in Mid-Infrared,**
Shim, H., Im, M., Lee, H. M., Lee, M. G., Kim, S. J., **Hwang, H. S.**, et al.,
2010, ApJ, 727, 14
14. **Evidence for a Tdust-unbiased selection of $z \sim 2$ ULIRGs,**
Magdis, G. E., Elbaz, D., **Hwang, H. S.**, HerMES team,
2010, MNRAS, 409, 22
13. **A First Glimpse into the FIR properties of high- z UV-selected Galaxies; Herschel/PACS observations of $z \sim 3$ LBGs,**
Magdis, G. E., Elbaz, D., **Hwang, H. S.**, Daddi, E., Rigopoulou, D., PEP team,
2010, ApJ, 720, L185
12. **Unveiling Far-Infrared Counterparts of Bright Submillimeter Galaxies Using PACS Imaging,**
Dannerbauer, H., Daddi, E., Morrison, G. E., PEP team (**Hwang, H. S.**),
2010, ApJ, 720, L144
11. **Distribution of Satellite Galaxies in High Redshift Groups,**
Wang, Y., Park, C., **Hwang, H. S.**, Xuelei, C.,
2010, ApJ, 718, 762

10. **A Multi-wavelength View of the Star Formation Activity at $z \sim 3$,**
Magdis, G.E., Elbaz, D., Daddi, E., Morrison, G.E., Dickinson, M., Rigopoulou, D., Gobat, R., **Hwang, H.S.**,
2010, ApJ, 714, 1740
9. **Detection of a Large-Scale Structure of Intracluster Globular Clusters in the Virgo Cluster,**
Lee, M. G., Park, H. S., **Hwang, H. S.**,
2010, Sci⁸, 328, 334
8. **The GC System of the Virgo gE Galaxy NGC 4636: II. Kinematics of the Globular Cluster System,**
Lee, M. G., Park, H. S., **Hwang, H. S.**, Arimoto, N., Tamura, N., Onodera, M.,
2010, ApJ, 709, 1083
7. **The GC System of the Virgo gE Galaxy NGC 4636: I. Subaru/FOCAS Spectroscopy and Database,**
Park, H. S., Lee, M. G., **Hwang, H. S.**, Arimoto, N., Tamura, N., Onodera, M.,
2010, ApJ, 709, 377
6. **The MIR View of Red Sequence Galaxies in Abell 2218 with AKARI,**
Ko, J., Im, M., Lee, H. M., Lee, M. G., Hopwood, R. H., Serjeant, S., Smail, I., **Hwang, H. S.**, et al.,
2009, ApJ, 695, L198
5. **Washington CCD Photometry of the GC System of the Giant Elliptical Galaxy M60 in Virgo,**
Lee, M. G., Park, H. S., Kim, E., **Hwang, H. S.**, Kim, S. C., Geisler, D.,
2008, ApJ, 682, 135
4. **Detection of CFIRB with AKARI/FIS Deep Observations,**
Jeong, W.-S., Pearson, C. P., Lee, H. M., et al. (**Hwang, H. S.**),
2007, Adv. Space Res.⁹, 40, 600
3. **Wide-Field Survey of Globular Clusters in M31. I. A Catalog of New Clusters,**
Kim, S. C., Lee, M. G., Geisler, D., Sarajedini, A., Park, H. S., **Hwang, H. S.**, Harris, W. E., et al.,
2007, AJ¹⁰, 134, 706
2. **The Connection b/n Star-forming Galaxies, AGN host galaxies, and Early-Type Galaxies in the SDSS,**
Lee, J. H., Lee, M. G., Kim, T., **Hwang, H. S.**, Park, C., Choi, Y.-Y.,
2007, ApJ, 663, L69
1. **The Nature of Blue Early-Type Galaxies in the GOODS Fields,**
Lee, J. H., Lee, M. G., **Hwang, H. S.**,
2006, ApJ¹¹, 650, 148

⁸Sci: Science

⁹Adv. Space Res.: Advances in Space Research

¹⁰AJ: The Astronomical Journal

¹¹ApJ: The Astrophysical Journal