

Korea Astronomy and Space Science Institute
 Center for Theoretical Astronomy
 Daedeokdae-ro, Yuseong-gu
 Daejeon 34055, Korea

Phone: +82 42-865-3343

Fax: +82 42-865-3343

Email: thiemhoang@kasi.re.kr

<http://coma.kasi.re.kr/TAG/~thiemhoang/index.html>

Research Interests

Grain Translational and Rotational Dynamics: Acceleration, Spin-up and Rotational Disruption

Grain Alignment and Magnetic Fields: Grain Alignment Theory, Dust Polarization Modeling

CMB Foregrounds: Dust Polarization and Anomalous Microwave Emission

Circumstellar Disks and Envelopes: Microwave Emission, Grain Alignment, Magnetic Fields and Polarization

Interstellar Objects and Exploration: Asteroid Dynamics, Relativistic-speed Spacecraft Physics

Supernovae and Gamma-Ray Burst: Time-varying Afterglows by Dust Disruption

Astrochemistry: Rotational Desorption of Water and Organic Molecules

Education

08.2012	Ph.D. in Astronomy	University of Wisconsin-Madison, WI, USA
08.2008	M.S. in Astronomy	University of Wisconsin-Madison, WI, USA
12.2003	M.S. in Theoretical Physics	Hanoi National University of Education, Hanoi, Vietnam
05.2001	B.S. in Theoretical Physics	Hanoi National University of Education, Hanoi, Vietnam

Employment and Position

01.2019–present	Group Head	Theoretical Astrophysics Group, Korea Astronomy and Space Science
01.2019–present	Associate Professor	Korea University of Science and Technology
03.2017–12.2018	Assistant Professor	Korea University of Science and Technology
09.2016–present	Senior Researcher (tenured)	Korea Astronomy and Space Science
09.2015–09.2016	CITA Postdoctoral Fellow	University of Toronto, Canada
09.2013–08.2015	Alexander von Humboldt Postdoctoral Fellow	Bochum and Frankfurt, Germany
08.2012–08.2013	CITA Postdoctoral Fellow	University of Toronto, Canada
09.2006–07.2012	Graduate Research Assistant	University of Wisconsin-Madison, USA
07.2005–08.2006	Visiting Scholar	University of Wisconsin-Madison, USA
07.2004–06.2005	Research Assistant	Institute of Astronomy and Astrophysics, Taipei, Taiwan
09.2001–06.2004	Lecturer in Physics	Hanoi National University of Education, Vietnam

Honors & Awards

2018	The best researcher award, Korea Astronomy and Space Science Institute	South Korea
2013–2015	Alexander von Humboldt Postdoctoral Fellowship	Germany
2012–2015	CITA Postdoctoral Fellowship	Canada
2012–2014	Nordita Postdoctoral Fellowship, declined	Sweden

Publications

40 first-author and second-author papers in peer-reviewed (SCI) journals, including 1 paper in Nature Astronomy

Journal

14 co-author publications in peer-reviewed (SCI) journals

1 book chapter, **3** refereed proceedings

Total citations: ~ **1500**; H-index: **21** (according to Google Scholar as of May 2019)

Grant History

Basic Science Grant from Korea Research Foundation (NRF): PI (150,000 USD/3yr), 2017-2020

SOFIA Grant: Co-I, 48,000 USD

Why are carbonaceous grains unaligned in the ISM? - HAWC+ polarimetry of IRC+10216

Conferences & Talks

Invited Talks at International Conferences

04.2020	Invited talk, Star and Planet Formation Conference <i>New Progress in Dust Astrophysics</i>	Munich, Germany
11.2019	Invited talk, 14th Asia-Pacific Physics Conference <i>New Progress in Dust Astrophysics</i>	Malaysia
08.2019	Invited talk, Asia Oceania Geosciences Society Meeting <i>Review on Grain Alignment Theory and Dust Polarization</i>	Singapore
06.2019	Invited lectures, International Plasma Summer School <i>Lectures on Dusty Astrophysical Plasma</i>	Quy Nhon, Vietna
05.2019	Midwest Magnetic Field workshop <i>Discovery of a new mechanism to destroy dust grains</i>	Wisconsin, USA
03.2019	Invited talk, ALMA polarimetry conference <i>Grain Alignment Theory</i>	Tokyo, Japan
10.2018	Cosmic Dust and Magnetism <i>Invited Review on Grain Alignment and Dust Polarization</i>	Daejeon, Korea
07.2018	Cosmic cycle of Gas and Dust <i>Invited Review on Dust Composition in Galaxy</i>	Quy Nhon, Vietnam
05.2018	From protostellar cores to disks <i>Invited Review on Dust Properties</i>	Paris, France
08.2017	Cosmic dust <i>Interstellar Polarization and Grain Alignment</i>	Mitaka, Japan
12.2016	Cosmic rays, magnetic turbulence, and reconnection <i>On the roles of magnetic fields in star formation via dust polarimetry</i>	Natal, Brazil
07.2016	Star formation in different environments <i>On the roles of magnetic fields in star formation via dust polarimetry</i>	Quy Nhon, Vietnam
05.2016	Star Formation, magnetic fields, and diffuse matter in the galaxy <i>Studying Magnetic fields with aligned interstellar grains</i>	Madison, USA
10.2015	Magnetic fields in the Universe V <i>Grain alignment by radiative torques</i>	Corcia, France
08.2015	Cosmology-50 years after CMB discovery <i>Spinning dust emission and polarization spectrum</i>	Quy Nhon, Vietnam
08.2014	Aprim 2014 <i>Spinning dust emission and polarization spectrum</i>	Daejeon, South Korea

08.2013	Workshop on Anomalous Microwave Emission <i>Spinning dust emission and polarization spectrum</i>	Pasadena, USA
02.2013	Magnetic fields in the Universe IV <i>Predictive theory of grain alignment by radiative torques</i>	Cancun, Mexico
08.2011	Magnetic fields in the Universe III <i>Predictive theory of grain alignment by radiative torques</i>	Poland

Invited Colloquia and Seminars

05.2019	Seminar, Center for Computational Astrophysics <i>Discovery of a new mechanism to destroy dust grains</i>	New York, USA
05.2019	Seminar, Harvard University <i>Discovery of a new mechanism to destroy dust grains</i>	Boston, USA
04.2019	Colloquium, Chinese University of Hong Kong <i>Can we send relativistic-speed nanocrafts to exoplanets?</i>	Hong Kong
04.2019	Seminar, Chinese University of Hong Kong <i>CMB Foregrounds and Dust Polarization</i>	Hong Kong
05.2018	Colloquium, UW-Madison <i>Can we send relativistic-speed nanocrafts to exoplanets?</i>	Madison, USA
05.2018	Astrophysics Seminar, Notre Dame <i>Can we send relativistic-speed nanocrafts to exoplanets?</i>	Notre Dame, USA
05.2017	Colloquium, CBNU <i>Interactions of relativistic spacecrafts with the ISM</i>	Chungbuk, Korea
05.2017	Colloquium, SNU <i>New insights on interstellar nanoparticles</i>	Seoul, Korea
04.2017	Seminar, NASA Ames <i>New insights on interstellar nanoparticles</i>	San Francisco, USA
04.2017	Stars and Planets seminar, ITC, Harvard <i>Polarization of anomalous microwave emission</i>	Boston, USA
04.2016	Astronomy Colloquium, University of Florida <i>Quantitative Polarimetry: From Star Formation to Cosmological Studies</i>	Florida, USA
03.2016	Astronomy Colloquium, University of Wisconsin-Madison <i>Quantitative Polarimetry: From Star Formation to Cosmological Studies</i>	Madison, USA
12.2015	Seminar, NAOJ <i>Polarization of anomalous microwave emission: Spinning Dust vs. Magnetic Dust</i>	Mitaka, Japan
06.2015	Astronomical Institute Seminar, Ruhr University Bochum <i>Spinning dust emission and polarization spectrum</i>	Bochum, Germany
06.2014	Department Seminar, Institut d'Astrophysique Spatiale <i>Grain alignment of interstellar dust and Polarization</i>	Orsay, France
01.2012	Theoretical Seminar, Department of Physics and Astronomy, Northwestern <i>Improved model of spinning dust emission</i>	Evanston, USA
08.2011	Miniworkshop on MHD turbulence, Cologne University <i>Predictive theory of grain alignment by radiative torques</i>	Cologne, Germany
05.2011	Wunch talk, Department of Astrophysical Sciences <i>Improved model of spinning dust emission</i>	Princeton, USA
05.2011	Lunch talk, Department of Astronomy, UW-Madison <i>Improved model of spinning dust emission</i>	Madison, USA
11.2011	ITC seminar, Harvard <i>Improved model of spinning dust emission</i>	Boston, USA

11.2011	Colloquium, University of Wisconsin-Stevens Point <i>Improved model of spinning dust emission</i>	Steven Points, USA
10.2011	Seminar, NASA at Goddard Space Flight Center <i>Improved model of spinning dust emission</i>	Goddard, USA
10.2011	Seminar, Department of Astronomy, Columbia University <i>Improved model of spinning dust emission</i>	New York, USA

Contributed Talks at International Conferences

12.2014	PLANCK 2014 - The microwave sky in temperature and polarization <i>Spinning dust emission and polarization spectrum</i>	Ferrara, Italy
10.2014	Cosmic magnetic fields <i>New method for measuring magnetic fields using UV polarimetry</i>	Krakow, Poland
06.2014	Astropol 2014 <i>New method for measuring magnetic fields using UV polarimetry</i>	Grenoble, France
05.2014	Theory and Modeling of Astrophysics Polarization <i>Radiative torque alignment and modeling of dust polarization</i>	Prague, Czech Republic
04.2013	47th ESLAB Symposium: The Universe as seen by Planck <i>CMB foreground emission from spinning dust</i>	Noorwijk, Netherlands
07.2012	Workshop on Anomalous Microwave Emission <i>Improved model of spinning dust emission</i>	Manchester, UK
07.2011	Miniworkshop on Plasma Astrophysics, Ruhr University Bochum <i>Improved model of spinning dust emission</i>	Bochum, Germany
05.2011	Understanding Galactic & extragalactic foregrounds <i>Improved model of spinning dust emission</i>	Zadar, Croatia

Supervised Students and Postdocs

2019.04-2019.06	Giang Nguyen, Bachelor student	University of Science and Technology of Hanoi (USTH)
2019.04-2019.06	Tung Nguyen, Bachelor student	University of Science and Technology of Hanoi (USTH)
2018.09-present	Hyeseung Lee, Postdoc	Korea Astronomy and Space Science Institute
2018.09-2019.11	Tram Le Ngoc, Postdoc	University of Science and Technology of Hanoi (USTH)
2017.06-08	Kim Yun-jeong, undergrad student	Chungnam National University (CNU)
2017.06-08	Le Ngan, Master student	University of Science and Technology of Hanoi (USTH)
2015-2019	Co-supervising a Ph.D. Student	Hanoi National University of Education, Vietnam
2009	Co-supervised an REU Student	University of Wisconsin-Madison

Teaching Experience

2019, Fall	Astrophysics course	Korea Advanced Institute of Technology (KAIST)
2019, Spring	Astrophysics course	Korea University of Science and Technology (UST)
2002-2004	Lecturer in Physics <i>During this period, I prepared and gave lectures in atomic physics, optics, and astronomy for undergraduate students majoring in physics. I also taught a course in optics physics for undergraduate students majoring in chemistry and a bilingual course, Physics in French, for high school students in Hanoi for one semester. In addition, I instructed general physics experiments for undergraduate students.</i>	Hanoi National University of Education, Vietnam

2001–2002 **Assistant Lecturer** Hanoi National University of Education. Vietnam
I hold discussion and problem solving sections in atomic physics, optics for undergraduate students.

Conference/Meeting Organizer

2019–present Member of SOC, Cosmology and Astrophysics conference, May 20- May 25, 2020 Lyon, France

2019–present	Organizer (Co-Chair of SOC) of Magnetic Fields in the Universe conference, Feb 16- Feb 22, 2019
	Quy Nhon, Vietnam

2018–2018 2, 2018	Organizer (Chair of SOC) of Cosmic Dust and Magnetism International Conference, Oct 30- Nov Korea
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2016–present	Organizer of Korean Numerical Astrophysics Meeting, Monthly in KASI	Korea
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2016–2017	Editorial Member of Proceedings of Star formation in different environments	Vietnam
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2015–2016	Member of Local Organizer Committee	Star formation in different environments Conference, Vietnam
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2010	Co-organizer	Midwest Magnetic Fields Workshop
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Professional Services

2016–2017	Member of Task Force Team	KASI-UST
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2008–present Peer reviewer Radio Sciences, JSQRT

2008–present Peer reviewer The Astrophysical Journal

2008–present Peer reviewer Monthly Notices of the Royal Astronomical Society

Outreach Activities

2006–2012 Public observing nights University of Wisconsin-Madison

2002–2004 Undergraduate observing nights Hanoi National University of Education

Computer Skills

Programming languages: Fortran 77/90, C, MPICH2, and Python

Software packages: Interactive Data Language (IDL), Mathematica

Operating systems: Mac OS X, Linux

Languages

Vietnamese (mother tongue), **English** (fluent), **French** (working knowledge)

Press Releases and Media Coverage

2019

https://www.kasi.re.kr/eng/post/eng_news/11814 Discovery of a new mechanism for dust destruction in strong radiation field

2017

<https://www.kasi.re.kr/kor/research/post/mainResearch/6021> Risks of ultrafast nanocrafts to Alpha Centauri and Protection

<http://www.universetoday.com/130458/shields-mr-sulu-cruising-20-speed-light-inherent-risks/> Shields up, Mr. Sulu! Cruising at 1/6 of lightspeed has some inherent risks

<http://www.skyandtelescope.com/astronomy-news/spacecraft-make-proxima-centauri/> Could Spacecraft Make it to Proxima Centauri?

<http://www.popsi.com/how-tiny-interstellar-spaceships-could-survive-void/> How we could see the near 'Earth-like' planet up close

2013

<http://www.news.wisc.edu/22159> Observations reveal critical interplay of interstellar dust, hydrogen

<http://www.usra.edu/news/pr/2013/dust>

Refereed (SCI) Publications

50. **Thiem Hoang**, Tram Le Ngoc, Rotational Desorption of Ice Mantles and Complex Molecules from Suprathermally Rotating Grains around YSOs, 2019, under review
<http://adsabs.harvard.edu/abs/2019arXiv190206438H>
49. Tram Le Ngoc, **Thiem Hoang**, Dust rotational dynamics in CJ-shocks: rotational disruption of nanoparticles by stochastic mechanical torques and spinning dust emission 2019, accepted
<http://adsabs.harvard.edu/abs/2019arXiv190201921T>
48. **Thiem Hoang**, A dynamical constraint on interstellar dust models from radiative torque disruption, 2019, ApJ, 876, 13
<http://adsabs.harvard.edu/abs/2019ApJ...876...13H>
47. **Thiem Hoang**, Tram Le Ngoc, Dust Rotational Dynamics in C-shocks: Rotational Disruption of Nanoparticles by Stochastic Mechanical Torques and Spinning Dust Emission, 2019, ApJ, 877, 36
<http://adsabs.harvard.edu/abs/2019ApJ...877...36H>
46. J. Herranen, A. Lazarian, **Hoang Thiem**, Radiative torques of irregular grains: Describing the alignment of a grain ensemble, 2019, in press
<http://adsabs.harvard.edu/abs/2018arXiv181207274H>
45. A. Lazarian, **Hoang Thiem** Magnetic Properties of Dust Grains, Effect of Precession and Radiative Torque Alignment, 2018, submitted
<http://adsabs.harvard.edu/abs/2018arXiv181010686L>
44. **Hoang Thiem** Tram Le Ngoc, Hyeseung Lee, and S-H. Ahn, Rotational disruption of dust grains by radiative torques in strong radiation fields, 2019, Nature Astronomy
<http://adsabs.harvard.edu/doi/10.1038/s41550-019-0763-6>
43. **Hoang Thiem**, Lan, N.Q., Vinh, N.A., and Kim Yun-Jeong: Physical modeling of microwave emission from spinning dust from circumstellar disks, 2018, ApJ, 862, 116
<http://adsabs.harvard.edu/abs/2018arXiv180311028H>
42. **Hoang, T.**, Loeb, A., Lazarian, A., & Cho, J. 2018, "Spinup and disruption of interstellar asteroids by mechanical torques, and implication for 1I/2017 (Oumuamua)," ApJ, 860, 42
<http://adsabs.harvard.edu/abs/2018arXiv180201335H>
41. **Hoang, T.**, Lazarian, A. 2018, "Effect of anisotropic radiation on alignment of PAHs," ApJ, 860, 158
<http://adsabs.harvard.edu/abs/2017arXiv171001835H>
40. Citoka A, **Hoang Thiem**, et al., "Polarization of stars with anomalous extinction," 2018, AA, 615, 42
<http://adsabs.harvard.edu/abs/2018AA%26A...615A...42C>
39. **Hoang, T.**, Lazarian, A., & Cho, J. 2018, "Alignment of irregular grains by mechanical torques," ApJ, 852, 129
<http://adsabs.harvard.edu/abs/2018ApJ...852..129H>
38. **Hoang Thiem**, "Relativistic Gas Drag on Dust Grains and Implications", 2017, ApJ, 847, 77
<http://adsabs.harvard.edu/abs/2017arXiv170800959H>
37. **Hoang, T.** and Loeb, A., "Electromagnetic forces on relativistic spacecraft", 2017, ApJ, 848, 31
<http://adsabs.harvard.edu/abs/2017arXiv170607798H>

36. **Hoang, T.**, "Effect of Alignment of Grains on Polarized Mid-IR emission from PAHs," 2017, ApJ, 838, 112
<http://adsabs.harvard.edu/abs/2017ApJ...838..112H>
35. **Hoang, T.**, "Properties and Alignment of Interstellar Grains toward Supernova Type Ia with anomalous polarization curves," 2017, ApJ, 836, 13, arXiv:1510.01822
<http://adsabs.harvard.edu/abs/2017ApJ...836...13H>
34. **Hoang, T.**, Lazarian, A., Burkhart, B., and Loeb, A., "The interaction of relativistic spacecrafts with the interstellar medium", 2017, ApJ, 837, 5, arXiv:1608.05284
<http://adsabs.harvard.edu/abs/2017ApJ...837....5H>
33. **Hoang, T.**, and Lazarian, A., "A unified model of grain alignment: radiative alignment of interstellar grains with magnetic inclusions," 2016, ApJ, 831, 159, arXiv:1605.02828
<http://adsabs.harvard.edu/abs/2016ApJ...831..159H>
32. **Hoang, T.**, Nguyen Anh Vinh, Nguyen Quynh Lan, "Spinning dust emission from ultrasmall silicates: emissivity and polarization spectrum," 2016, ApJ, 824, 18, arXiv:1603.05277
<http://adsabs.harvard.edu/abs/2016ApJ...824...18H>
31. **Hoang, T.**, and Lazarian A. "Polarization of Magnetic Dipole Emission and Spinning Dust Emission from Magnetic Nanoparticles," 2016, ApJ, 821, 91, arXiv:1511.03691
<http://adsabs.harvard.edu/abs/2015ApJ...806..255H>
30. **Hoang, T.**, Lazarian, A., & Schlickeiser, R., 2015, "Acceleration and Destruction of Relativistic Dust in Radiation and Its Implication for Ultrahigh Energy Cosmic Rays," ApJ, 804, 1
<http://adsabs.harvard.edu/abs/2015ApJ...806..255H>
29. **Hoang, T.**, Lazarian, A., & Andersson, B-G., 2015, "Modeling grain alignment by RATs and polarization for reflection nebula," MNRAS, 448, 1178–1198
<http://adsabs.harvard.edu/abs/2015MNRAS.448.1178H>
28. **Hoang, T.**, Lazarian, A., & Martin, P. G. 2014, "Alignment of small grains by resonance paramagnetic relaxation and constraining magnetic fields," ApJ, 764, 1
<http://adsabs.harvard.edu/abs/2014ApJ...790....6H>
27. **Hoang, T.**, & Lazarian, A. 2014, "Grain alignment in special environment conditions," MNRAS, 438, 680
<http://adsabs.harvard.edu/abs/2014MNRAS.438..680H>
26. **Hoang, T.**, Lazarian, A., & Martin, P. G. 2013, "Constraints on polarization of electric dipole emission from spinning dust emission," ApJ, 779, 152
<http://adsabs.harvard.edu/abs/2013ApJ...779..152H>
25. **Hoang, T.**, & Lazarian, A. 2012, "Acceleration of Small Dust Grains due to Random Charge Fluctuations," ApJ, 761, 96
<http://adsabs.harvard.edu/abs/2012ApJ...761...96H>
24. **Hoang, T.**, Lazarian, A., & Schlickeiser, R. 2012, "Revisiting Acceleration of Charged Grains in MHD Turbulence," ApJ, 747, 54
<http://adsabs.harvard.edu/abs/2012ApJ...747...54H>
23. **Hoang, T.**, & Lazarian, A. 2012, "Spinning Dust Emission from Wobbling Grains: Important Physical Effects and Implications," 2012, 44, *Advances in Astronomy*
<http://adsabs.harvard.edu/abs/2012AdAst2012E...44H>

22. **Hoang, T.**, Lazarian, A., & Draine, B. T. 2011, “Spinning Dust Emission: Effects of Irregular Grain Shape, Transient Heating and Comparison to WMAP data,” *ApJ*, 741, 87
<http://adsabs.harvard.edu/abs/2011ApJ...741...87H>
21. **Hoang, T.**, Draine, B. T., & Lazarian, A. 2010, “Improving the Model of Spinning Dust Emission: Effects of Grain Wobbling and Transient Spin-up,” *ApJ*, 715, 1462
<http://adsabs.harvard.edu/abs/2010ApJ...715.1462H>
20. **Hoang, T.**, & Lazarian, A. 2009b, “Alignment of Dust Grains: Effects of Internal Relaxation of Energy and Complex Radiation Fields,” *ApJ*, 697, 1316
<http://adsabs.harvard.edu/abs/2009ApJ...697.1316H>
19. **Hoang, T.**, & Lazarian, A. 2009a, “Radiative Torques Alignment: Thermal Flipping and Effects of Pin-wheel Torques,” *ApJ*, 695, 1457
<http://adsabs.harvard.edu/abs/2009ApJ...695.1457H>
18. **Hoang, T.**, & Lazarian, A. 2008, “Radiative Torques Alignment: Essential Physical Processes,” *MNRAS*, 388, 117
<http://adsabs.harvard.edu/abs/2008MNRAS.388..117H>
17. Lazarian, A., & **Hoang, T.** 2008, “Alignment of Dust with Magnetic Inclusions: Radiative Torques and Superparamagnetic Barnett and Nuclear Relaxation,” *ApJ*, 676, L25
<http://adsabs.harvard.edu/abs/2008ApJ...676L..25L>
16. Lazarian, A., & **Hoang, T.** 2007b, “Subsonic Mechanical Alignment of Irregular Grains,” *ApJ*, 669, L77
<http://adsabs.harvard.edu/abs/2007ApJ...669L..77L>
15. Lazarian, A., & **Hoang, T.** 2007a, “Radiative Torques: Analytical Model and Basic Properties,” *MNRAS*, 378, 910
<http://adsabs.harvard.edu/abs/2007MNRAS.378..910L>
14. Chiu, P-J, **Hoang, C-T**, Dinh-V-Trung, et al. 2006, “A Slowly Expanding Disk and Fast Bipolar Flows from the S Star Pi Gruis,” *ApJ*, 645, 605
<http://adsabs.harvard.edu/abs/2006ApJ...645..605C>
13. Pattle Kate, et al., including **Thiem Hoang**, JCMT BISTRO Survey observations of the Ophiuchus Molecular Cloud: Dust grain alignment properties inferred using a Ricean noise model, submitted to AAS journals
12. Liu Junhao, et al., including **Thiem Hoang**, The JCMT BISTRO Survey: The Magnetic Field In The Starless Core rho Ophiuchus C, 2019, *ApJ*, 877, 43
11. Wang, Jia-Wei, et al., including **Thiem Hoang**, JCMT BISTRO survey: Magnetic Fields within the Hub-Filament Structure in IC 5146, 2019, *ApJ*, 876, 42
10. Coude, Simon, et al., including **Thiem Hoang**, The JCMT BISTRO Survey: The Magnetic Field of the Barnard 1 Star-Forming Region, 2019, *ApJ*, in press
9. Soam, A., et al., including **Hoang Thiem**, Magnetic fields towards Ophiuchus-B derived from SCUBA-2 polarization measurements, 2018, *ApJ*, 861, 65
<http://adsabs.harvard.edu/abs/2018arXiv180506131S>

8. Dickinson, C, including **Hoang Thiem**, "Review on Anomalous Microwave Emission," 2018, New Astronomy Review, in press
<http://adsabs.harvard.edu/abs/2018NewAR..80....1D>
7. Kwon Jungmi, Ward-Thompson, D, Pattle, Kate, Bastien, Pierre et al., including **Thiem Hoang**, a first look at BISTRO observations of the ρ Oph-A core, ApJ, 859, 4
<http://adsabs.harvard.edu/abs/2018ApJ...859....4K>
6. Han Zhang, CM Telesco, **Hoang Thiem** et al., "Detection of Polarized Infrared Emission by Polycyclic Aromatic Hydrocarbons in the MWC 1080 Nebula", 2017, ApJ, 844, 6
<http://adsabs.harvard.edu/abs/2017ApJ...844....6Z>
5. Ward-Thompson, D, Pattle, Kate, Bastien, Pierre et al., including **Thiem Hoang**, First Results from BISTRO: A SCUBA-2 Polarimeter Survey of the Gould Belt, ApJ, 842, 66
<http://adsabs.harvard.edu/abs/2017ApJ...842...66W>
4. Kolokolova, L., Koenders, C., **Hoang Thiem**, Lazarian A. "Clues to cometary circular polarization from studying the magnetic field in the vicinity of the nucleus of comet 67P/Churyumov–Gerasimenko," 2016, MNRAS, 462, S422–S431
<http://adsabs.harvard.edu/abs/2016MNRAS.462S.422K>
3. Andersson, B.-G., Piirola, V., De Buizer, J., Clemens, D. P., Uomoto, A., Charcos-Llorens, M., Geballe, T. R., Lazarian, A., **Hoang, T.**, & Vornanen, T. 2013, "Evidence for H₂ formation driven dust grain alignment in IC 63", ApJ, 775, 2
<http://adsabs.harvard.edu/abs/2013ApJ...775...84A>
2. Ivlev, A., Lazarian, A., Tsytovich, V. N., de Angelis, U., **Hoang, T.**, & Morfill, G. E. 2010, "Acceleration of Small Dust Grains due to Charge Fluctuations," ApJ, 723, 612
<http://adsabs.harvard.edu/abs/2010ApJ...723..612I>
1. Whittet, D., Hough, J. H., Lazarian, A., & **Hoang, T.** 2008, "The Efficiency of Grain Alignment in Dense Interstellar Clouds: A Reassessment of Constraints from Near Infrared Polarization," ApJ, 674, 304
<http://adsabs.harvard.edu/abs/2008ApJ...674..304W>

Conference Proceedings

3. Hoang, T., 2015, "Anomalous Microwave Emission from Spinning Dust and its Polarization Spectrum", proceeding for Cosmology: 50 years after CMB discovery
<http://adsabs.harvard.edu/abs/2015arXiv151105997H>
2. Hoang, T., & Lazarian, A. 2012, "Mapping Magnetic Fields through Aligned Dust Grains," proceeding for Magnetic fields in the universe III
1. Lazarian, A., & **Hoang, T.** 2011, "Alignment of Dust by Radiative Torque: Recent Developments," ASPC, 449, 116
<http://adsabs.harvard.edu/abs/2011ASPC..449..116L>

Selected Posters

4. **Hoang, T.**, Draine, B. T., & Lazarian, A. "Improved Model of Spinning Dust Emission: Effect of Wobbling and Transient Spin-up," American Astronomical Society Meeting, Jan 2010
3. **Hoang, T.**, & Lazarian, A. "Alignment of Dust Grains by Radiative Torques: Effects of Thermal Flipping and Pinwheel Torques," American Astronomical Society Meeting, Jan 2009

2. **Hoang, T.**, & Lazarian, A. “Alignment of Dust Grains by Radiative Torques: Essential Physical Processes and Grain Alignment,” American Astronomical Society Meeting, Jan 2008
1. **Hoang, T.**, Lazarian, A., Yan, H., & Nordsieck, K. “Diagnostics of Magnetic Fields in Interstellar Diffuse Medium via Aligned Dust Grains and Atoms,” American Astronomical Society Meeting, Dec 2006

Book Chapters

1. Lazarian, A., Andersson, B-G, & **Hoang, T.** 2015, “Grain Alignment: Role of Radiative Torques and Paramagnetic Relaxation,” in *Polarimetry of stars and planetary systems*, eds. L. Kolokolova, J. Hough, & A.-Ch. Levasseur-Regourd (New York: Cambridge Univ. Press)
<http://adsabs.harvard.edu/abs/2015arXiv151103696L>