

TAWEEWAT SOMBOONPANYAKUL

CONTACT MIT Kavli Institute, Massachusetts Institute of Technology
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EDUCATION

Massachusetts Institute of Technology *expected 2021*
Ph.D. in Physics, Advisor: Prof. Michael McDonald
Thesis: The Clusters Hiding in Plain Sight (CHiPS) survey
University of Chicago *2011-2015*
BA in Physics with specialization in Astrophysics
Honor Thesis Advisor: Prof. Hsiao-Wen Chen

AWARDS

2019 Representative to Lindau Nobel Laureate Meetings, Lindau, Germany
2015 **MIT Clark Fellow**, Graduate Research Fellowship, MIT
2015 **Phi Beta Kappa, Dean's List**, The University of Chicago
2014 **The FOTI Global Leadership Award**, The University of Tokyo
2014, 2015 **The Maroon Key Society**, The University of Chicago
2013 **Walter and Fay Selove Prize in Physics**, The University of Chicago

SELECTED PRESS

- NASA Press – “A weakened black hole allows its galaxy to awaken”, Nov. 2019
- MIT News Press – “Sprawling galaxy cluster found hiding in plain sight”, Aug. 2018
- Space.com Press – “Huge Galaxy Cluster Found Hiding in Plain Sight”, Jun. 2018

OBSERVING

Successful Telescope Proposal as PI or as the majority contributor

- Hubble, 2019 Mid Cycle, 2 orbits, “Imaging a Rare Starburst Central Galaxy in a Merging Cluster”
- Magellan, 2018B, 3 nights, “Spectroscopic Follow Up for the CHiPS galaxy clusters candidates”
- Chandra, 2018, 137 ks, “A Unique Sample of Extreme-BCG Clusters at $0.2 < z < 0.6$ ”
- Magellan, 2017B, 3 nights, “The CHiPS Surveys: Clusters Hiding in Plain Sight”
- Magellan, 2016A, 3 nights, “The CHiPS Surveys: Clusters Hiding in Plain Sight”

Observing Experience

- Magellan Telescope, Las Campanas Observatory (LCO), Long-slit spectroscopy with LDSS3, 2018
- Magellan Telescope, (LCO), Optical imaging with PISCO, 2017B
- Magellan Telescope, (LCO), Optical imaging with PISCO, 2017A
- Magellan Telescope, (LCO), Optical imaging with PISCO, 2016B

TEACHING

Mentoring

- Mentoring 6 undergraduate students in Physics at MIT for academic and social supports

Undergraduate/Graduate Taught Course

- Graduate Teaching Assistant in 8.01 Physics I - Mechanics at MIT, Fall 2020
- Graduate Teaching Assistant, for Prof. Michael McDonald in 8.902 graduate-level Astrophysics II at MIT, Fall 2019
- Graduate Teaching Assistant, for Prof. Kiyoshi Masui in 8.01 Physics I - Mechanics at MIT, Fall 2018

- College Core Tutor Program for Physics at the University of Chicago, 2015

OUTREACH

- Session Chair, “Galaxy Cluster I”, 235th Meeting American Astronomical Society, 2020
- Member of MIT Astrogazers, Observing with the public on the sidewalk, 2017-Present
- Volunteer at Vatino STEM Alliance Science Festival, Apr. 2019
- Volunteer at Cambridge Science Festival, “Solar Observing”, Apr. 2018
- Volunteer at MIT Museum, “Nautical Day with Celestial Navigation”, Mar, Nov 2018
- Public Speaker at Mahidol University, “Impact of Active Galaxies on Clusters”, Aug. 2017
- World Wide Telescope Ambassadors at Harvard University, 2016
- Organizer for a Yerkes Observatory Weekend Workshop, WI, 2014
- President of Ryerson Astronomical Society at the University of Chicago, 2013-2014

RESEARCH PRESENTATION

Contributed Talks

- 235th Meeting American Astronomical Society, AAS, Honolulu, HI, Jan. 2020, “Clusters Hiding in Plain Sight (CHIPS)”
- Planetary Systems: A Synergistic View, ICISE, Quy Nhon, Vietnam, Jul. 2015, “Transiting Exoplanet’s Impact Parameter: Long vs Short Cadence”
- UChicago-Northwestern Exoplanet Workshop, Alder Planetarium, IL, 2014, “Transiting Exoplanet’s Impact Parameter: Long vs Short Cadence”

Seminars

- University of Michigan, Ann Arbor, MI, Oct. 2020 (virtual)
- University of Missouri, Kansas City, MO, Aug. 2020 (virtual)
- National Astronomical Research Institute of Thailand, Chiang Mai, Thailand, Jan. 2019
- Kasetsart University, Bangkok, Thailand, Jan. 2019
- Mahidol University, Bangkok, Thailand, Jan. 2019
- Carnegie Observatories, Pasadena, Dec. 2018

Conference Posters

- Tracing Cosmic Evolution with Clusters of Galaxies, Sesto (BZ), Italy, Jul. 2019
- 69th Lindau Nobel Laureate Meeting, Lindau, Germany, Jul. 2019
- 17th Meeting High Energy Astrophysics Division, Monterey, CA, Mar. 2019
- SnowCluster – The Physics of Galaxy Clusters, Snowbird, UT, Mar. 2018
- Chandra Science for the Next Decade, Cambridge, MA, Aug. 2016
- 227th Meeting American Astronomical Society, AAS, Kissimmee, FL, Jan. 2016

REFEREED PUBLICATIONS

1. **Somboonpanyakul, T.**; McDonald, M.; Gaspari, M.; Stalder, B.; Stark, A., Bayliss, M. in prep., “The Clusters Hiding in Plain Sight (CHIPS) Survey: CHIPS1911+4455 (Phoenix meets El Gordo)”
2. **Somboonpanyakul, T.**; McDonald, M.; Gaspari, M.; Stalder, B.; Stark, A., submitted, ApJ, “The Clusters Hiding in Plain Sight (CHIPS) Survey: Complete Sample of Extreme BCG Clusters”
3. McDonald, M.; McNamara, B. R.; Voit, G. M.; Bayliss, M.; Benson, B. A.; Brodwin, M.; Canning, R. E. A.; Florian, M. K.; Garmire, G. P.; Gaspari, M.; Gladders, M. D.; Hlavacek-Larrondo, J.; Kara, E.; Reichardt, C. L.; Russell, H. R.; Saro, A.; Sharon, K.; **Somboonpanyakul, T.**; Tremblay, G. R.; van Weeren, R. J., 2019, ApJ, 885:63, “Anatomy of a Cooling Flow: The Feedback Response to Pure Cooling in the Core of the Phoenix Cluster”
4. **Somboonpanyakul, T.**; McDonald, M.; Lin, H. W.; Stalder, B.; Stark, A., 2018, ApJ, 863:122, “The Clusters Hiding in Plain Sight (CHIPS) Survey: A First Discovery of a Massive Nearby Cluster Around PKS1353-341”