

# CURRICULUM VITAE

## James Mullaney

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### RESEARCH ACHIEVEMENTS:

I have been actively researching the properties of AGNs in both the low and high redshift universe for eleven years, ten years postdoctoral. Since completion of my PhD my main research achievements have been as follows:

- Showing that the levels of far-infrared emission from AGN-hosting galaxies has decreased significantly over the last 10 billion years. Since far-infrared emission is largely produced by star-formation, this shows that early AGNs resided in galaxies that were forming stars much rapidly than today (see Mullaney et al. 2010, MNRAS, 401, 905 & Mullaney et al. 2012, MNRAS, 419, 95).
- Using Spitzer spectroscopy and IRAS photometry to empirically constrain the intrinsic mid to far-infrared spectral energy distributions (SEDs) of AGNs. Knowing the intrinsic AGN infrared SED has allowed us and other groups to precisely quantify the levels of AGN activity and star-formation taking place in galaxies across cosmic time (see Mullaney et al. 2011, MNRAS, 414, 1082).
- Exploiting the deepest data obtained by the Herschel Space Telescope to show that the mean-average star-forming properties of X-ray selected AGN are consistent with that of typical star-forming galaxies at similar redshifts. This provides strong evidence that the majority of AGNs do not reside in star-bursting galaxies and thus are unlikely to be triggered major mergers events (see Mullaney et al. 2012, MNRAS, 419, 95).
- Using stacking techniques on the deepest X-ray images yet obtained to show that, on average, black hole growth has closely tracked galaxy growth over the last 10 billion years, irrespective of galaxy mass. Since the vast majority of star-formation is not triggered by rare major mergers, we interpret our results as providing further evidence that a significant fraction of black hole growth is triggered instead by slow, secular processes such as disk instabilities (see Mullaney et al. 2012, ApJL, 753, 30).
- Analysing the spectra of ~25,000 AGN to determine the prevalence of AGN-driven outflows in the low redshift (i.e.,  $z < 0.4$ ) Universe. This work demonstrated that fast (i.e.,  $> 500$  km/s) outflows are present in around 10% of all AGN at these redshifts. In doing so, I also revealed a close link between outflow speed and the radio properties of the AGN, suggesting radio jets may play an important role in driving these outflows (see Mullaney et al. 2013, MNRAS, 433, 622).

### EDUCATION:

- 2005 - 2008: **Postgraduate:** Durham University. Ph. D. in Astronomy. “The location and kinematics of the emission line regions in AGNs”. Supervised by Prof. Martin Ward.
- 2004 - 2005: Period spent in industry.
- 2000 - 2004: **Undergraduate:** University of Nottingham. M.Sci. Physics with Astronomy. First Class Honours.

### RESEARCH CAREER:

- 2016 - Present: Lecturer in Astrophysics, The University of Sheffield
- 2013 - 2016: Vice Chancellor’s Fellow. The University of Sheffield.
- 2012 - 2013: Leverhulme Early Career Research Fellow. Durham University. (3 yr funded position cut at 18 months to take up Vice Chancellor’s fellowship).
- 2010 - 2012: Eurotalents Research Fellow, CEA-Saclay. Jointly funded by an FP7 European research grant and the French Government.
- 2008 - 2010: Research Fellow at Durham University, funded by a Leverhulme Trust Research Prize awarded to Dr. D. M. Alexander.

### PUBLICATIONS

- First author on 9 refereed journal articles (attracting >700 citations as of July 2017).
- Author on 64 refereed journal articles overall (attracting >3700 citations as of July 2017).
- H-index: 34

**AWARDS, FELLOWSHIPS AND GRANTS:**

- November, 2017: Co-I on Sheffield astronomy group's STFC consolidated grant. Final grant amount TBC, expected > £1M.
- January, 2017: Awarded £75,000 from STFC to fund project working with Thai researchers to train Thai postgraduate students on handling and analysing large datasets.
- November, 2014: Awarded £10,000 from The University of Sheffield to fund proof-of-concept research into applying astronomical image analysis techniques to biological imaging data. This grant was used, in part, to fund a summer research student throughout July and August, 2015.
- March, 2013: Awarded a Vice Chancellor's Fellowship.
- May, 2011: Awarded a Leverhulme Early Career Research Fellowship.
- December, 2009: Awarded a Eurotalents Research Fellowship, part funded by a European FP7 grant.
- March, 2002: Awarded a Universitas-21 grant to study at the University of Toronto, Canada, during my 3rd year of undergraduate studies.

**INVITED CONFERENCE TALKS:**

In addition to delivering talks at over twenty international conferences and seminars, I have also been invited to give talks at the following conferences:

- Chania, Crete, Invited Review Talk, Sep. 2015, *The demographics and environments of AGN*.
- Puerto Varas, Chile, Invited talk, March, 2015, *Unveiling the AGN – galaxy evolution connection*.
- Leiden, The Netherlands, Invited talk, July, 2013, *Co-evolution of BH accretion and SFR*.
- Sicily, Italy, Invited talk, June 2013, *Co-evolution of BH accretion and SFR*.
- Ringberg Castle, Germany, Invited talk, December, 2012, *Co-evolution of BH accretion and SFR*.

**SELECTED POSITIONS OF RESPONSIBILITY:**

- Co-organiser of the RAS Discussion Meeting: The Link Between AGN and Galaxy Formation, December, 2017.
- Postgraduate admissions tutor for the Astronomy Group, 2016 - onwards
- University of Sheffield's Liaison for the Square Kilometre Array, January 2015 - onwards
- Member of the Science Organising Committee of the Demographics and Environments of AGN international conference, Crete, 2015
- Member of the Science Organising Committee of the AGN vs. Star formation international conference, Durham, 2014
- Discussion session lead at the AGN vs. Star formation international conference, Durham, 2014
- Principal supervisor to departmentally-funded PhD student at The University of Sheffield (2013-2017)
- Principal supervisor to two 4th year undergraduate MSci students at The University of Sheffield (2013-2014)
- Organiser of the IDL and python programming postgraduate course at Durham University (2011-2012).
- Principal organiser of the 2009 Durham-Edinburgh Extragalactic meeting.
- Referee for the Monthly Notices of the Royal Astronomical Society and the Astrophysical Journal.

**OUTREACH:**

- Tapton School, Sheffield, April 2014 - Onwards.  
Regular participation in GCSE and A-Level Physics classes to help the children relate what they are learning to cutting edge physics and astronomy research.
- Manor College Of Technology, Hartlepool, April 2009:  
Interactive presentation to three classes of 11 and 12 years old pupils discussing the benefits and technological challenges associated with Man's recent exploration of Mars.
- Acre Rigg Primary School, Peterlee, March 2009:  
An hour long discussion with a group of 11 year old pupils concerning the current state of the art in both ground based and space based astronomical observatories.
- Beijing, China, March 2008:  
Gave a presentation on the current quest to find extraterrestrial life to a group of young students learning English as a foreign language.
- Framwellgate School, Durham, May 2006:  
Gave a presentation to a group of 14 year old pupils on the history and distance scale of the Universe.
- Sunderland Amateur Astronomy Society, November 2006:  
Presented a talk on the history of the study of Active Galactic Nuclei.

## PUBLICATION LIST

Nine first author (>700 citations) papers; 64 papers in total (> 3700 citations).

### *First-authored papers:*

1. **Mullaney, J. R.** and 35 colleagues,  
The NuSTAR Extragalactic Surveys: Initial results and catalog from the Extended Chandra Deep Field - South.  
Accepted for publication; awaiting reference code
2. **Mullaney, J. R.** and 18 colleagues,  
ALMA and Herschel reveal that AGN and main-sequence galaxies have different star formation rate distributions  
2015, arXiv, 1506.05459
3. **Mullaney, J. R.**, and 5 colleagues,  
Narrow-line region gas kinematics of 24,264 optically-selected AGN: the radio connection,  
2013, MNRAS, 433, 622
4. **Mullaney, J. R.**, and 8 colleagues,  
The Hidden "AGN Main Sequence": Evidence for a Universal Black Hole Accretion to Star Formation Rate Ratio since  $z \sim 2$  Producing an  $M_{\text{BH}}\text{-}M^*$  Relation,  
2012, ApJ, 753, L30
5. **Mullaney, J. R.**, and 30 colleagues,  
GOODS-Herschel: the far-infrared view of star formation in active galactic nucleus host galaxies since  $z \sim 3$ ,  
2012, MNRAS, 419, 95
6. **Mullaney, J. R.**, and 3 colleagues,  
Defining the intrinsic AGN infrared spectral energy distribution and measuring its contribution to the infrared output of composite galaxies,  
2011, MNRAS, 414, 1082
7. **Mullaney, J. R.**, and 4 colleagues,  
Characterising the far-infrared properties of distant X-ray detected AGNs: evidence for evolution in the infrared-X-ray luminosity ratio,  
2010, MNRAS, 401, 995
8. **Mullaney, J. R.**, and 4 colleagues,  
The location and kinematics of the coronal-line emitting regions in active galactic nuclei,  
2009, MNRAS, 394, L16
9. **Mullaney, J. R.** and Ward, M. J.,  
Optical emission-line properties of narrow-line Seyfert 1 galaxies and comparison active galactic nuclei,  
2008, MNRAS, 385, 53

### *Selected co-authored papers*

10. Bernhard E., **Mullaney, J. R.** and 3 colleagues  
An enhanced fraction of starbursting galaxies among high Eddington ratio AGNs  
2016, MNRAS, 460, 902
11. Harrison C. M., Alexander D. M., **Mullaney J. R.** and 5 colleagues  
The KMOS AGN Survey at High redshift (KASHz): the prevalence and drivers of ionized outflows in the host galaxies of X-ray AGN  
2016, MNRAS, 456, 1195
12. Harrison C. M., Alexander D. M., **Mullaney J. R.** and Swinbank, A. M.  
Kiloparsec-scale outflows are prevalent among luminous AGN: outflows and feedback in the context of the overall AGN population  
2014, MNRAS, 441, 3306
13. Del Moro A., **Mullaney J. R.** and 26 colleagues  
NuSTAR J033202-2746.8: Direct Constraints on the Compton Reflection in a Heavily Obscured Quasar at  $z \approx 2$   
2014, ApJ, 786, 16
14. Hickox, R. C., **Mullaney J. R.** and 5 colleagues  
Black Hole Variability and the Star Formation-Active Galactic Nucleus Connection: Do All Star-forming Galaxies Host an Active Galactic Nucleus?  
2014, ApJ, 782, 9

# Dr. Utane Sawangwit

Senior Research Astronomer,  
High Performance Computing & Data Handling Project leader  
National Astronomical Research Institute of Thailand (NARIT)  
AstroPark, Mue. 4, Donkaew, Mae-Rim, Chiang Mai, 50180  
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Email: u.sawangwit@gmail.com, utane@narit.or.th



## Education

**2011 Ph.D. in Physics** (Extragalactic astrophysics and Cosmology)

Durham University, Department of Physics, ‘Testing the Standard Cosmological Model’

**2006 B.A.+ M.Sci.Hons, Natural Sciences** (Experimental and Theoretical Physics)

University of Cambridge, Cavendish Laboratory, ‘Evolution of young radio sources’

## Research Interests

- Cosmology and Large Scale structures of the Universe, Cosmological Surveys, AGN evolution.
- Computational Astrophysics and Cosmology, Data Intensive and data mining in astronomy.

## Grants & Awards

- PI of two successful applications for NARIT-STFC Newton Fund: Capacity Building on Data Handling in astronomy ('Big Data with GOTO'; UK-PI: Dr. J. Mullaney, Sheffield U. & 'Astronomical Data flow for Robotic telescopes'; UK-PI: Dr. R. Smith, LJMU), 2017-2018.
- Australian Government DFAT Australian-ASEAN Council grant for Capacity Building and technology transfer on Data intensive astronomy and development of radio astronomy in Thailand, 2016 - 2019, (Thai PI, Australian PI: Prof. Andreas Wicenec).
- Institute for the Promotion of Teaching Science and Technology (IPST) of The Royal Thai Government, full-funding for studying Physics in the UK, 2001-2011.
- Clare College excellence result awards, University of Cambridge, 2003 & 2004.
- Represented Thailand at the 31st International Physics Olympiad, U. of Leicester, UK, 2000.

## Work/Teaching experience and service to the profession

- Mentor of a successful Thailand Research Fund (TRF) grant application, Dr. Pimpunyawat Tummuangpak, Astronomy and Astrophysics group, Khon Khaen University, 2016 - present.
- Adjunct Lecturer, High Energy Astrophysics and Cosmology, Astronomy Master program, Chiang Mai University & Suranaree University of Technology, 2015 - present.
- Lecturer, Xinglong (NAOC) Astrophysical School, 'Observational Cosmology', China, Dec 2015.
- Occasional reviewer for Monthly Notice of Royal Astronomical Society (MNRAS) journal.

- Lecturer, IAU International School for Young Astronomers, Chiang Mai, Thailand, Nov 2014.
- Short-term post-doctoral research, Durham University, UK, 2011 - 2012.
- Teaching Assistant, Astrophysics and Cosmology undergrad. course, Durham, UK, 2007–2010.

## Selected Conferences, Workshops and Schools

- NARIT-STFC Big Data analytics workshop with GOTO data, Mar 2017 (SOC and organizer).
- NARIT COMputational Astrophysics and Cosmology (COMAC) school, Nov 2016 (SOC and main organizer).
- East Asia VLBI Workshop, Guiyang, PR.China, November 2016.
- NARIT- ICRAR capacity building on Data Intensive Astronomy as part of the two-institutes collaboration, Perth, Australia, September 2016.
- The NARIT-STFC Newton Fund capacity building in data handling, Bangkok, September 2016.
- Advanced analyTical Method in cosmology and HIgh energy physics (AIMHI) workshop, Chiang Mai, June 2016, (SOC and main organizer).
- The 1st and 2nd South East Asian Astronomy Network (SEAAN) computational Modeling and Data analysis in astronomy (SEA-MODA) workshop, Thailand, May 2013 (Chiang Mai) & 2015 (Phuket) (SOC and main organiser).
- ‘Durham VST ATLAS Survey Kick-off’ workshop, Durham, UK, December 2011.

## Selected Publications

- Chantavat, T., **Sawangwit, U.** & Wandelt, B. D., ‘Void Profile from Planck Lensing Potential Map’, 2017, ApJ, 836, 156.
- Chehade, Ben, Shanks, T., Findlay, J.; Metcalfe, N., **Sawangwit, U.** et al., ‘The 2QDES Pilot: the luminosity and redshift dependence of quasar clustering’, 2016, MNRAS, 459, 1179.
- Chantavat, T., **Sawangwit, U.**, Sutter, P. M. & Wandelt, B. D., ‘Cosmological parameter constraints from CMB lensing with cosmic voids’, 2016, Phy.Rev.D.,93, 043523.
- Sangka, A., **Sawangwit, U.** & Sanguansak, N., ‘Voids Lensing of the CMB at High Resolution’, 2015, PKAS, 30, 397.
- **Sawangwit, U.**, Shanks, T., Croom, S. M. et al., ‘Measuring BAO and non-Gaussianity via QSO clustering’, 2012, MNRAS, 420, 1916.
- **Sawangwit, U.**, et al., ‘Angular correlation function of 1.5 million luminous red galaxies: clustering evolution and a search for baryon acoustic oscillations’, 2011, MNRAS, 416, 3033.
- **Sawangwit, U.** & Shanks, T., ‘Beam profile sensitivity of the WMAP CMB power spectrum’, 2010, MNRAS Letters, 407, L16.
- **Sawangwit, U.**, Shanks, T., Cannon, R. D. et al., ‘Cross-correlating WMAP5 with 1.5 million LRGs: a new test for the ISW effect’, 2010, MNRAS, 402, 2228.
- **Sawangwit, U.** & Shanks, T., ‘Is everything we know about the universe wrong?’, 2010, Astronomy & Geophysics, RAS, 51, 5.14.

# Curriculum Vitae

## Wg.Cdr.Dr. TOSSAPON BOONGOEN

**Address:** 9/219, The Key Changwattana, Parkret, Nonthaburi 11120

**Email:** tossapon.boo@mfu.ac.th

**Mobile:** 088-6553339

### **Education and Training**

Oct 2014 – Sep 2015	Air Command and Staff College, Royal Thai Air Force, Thailand
Apr-Aug 2011	Squadron Leader School, Royal Thai Air Force, Thailand
Jun 2009 – Aug 2010	Research Fellow, at Aberystwyth University, UK
Jun 2007 – May 2009	Postdoctoral in Artificial Intelligence (Application of Artificial Intelligence to Anti-Terrorism), at Aberystwyth University
Oct 1998 – Oct 2003	PhD in Artificial Intelligence (Text Mining and Natural Language Processing), at Cranfield University, UK

### **Employment**

Jun 2017 – Present	Lecturer, School of Information Technology, Mae Fah Luang University, Thailand
Oct 2016 – May 2017	Associate Professor, Department of Mathematics and Computer Science, Royal Thai Air Force Academy (RTAFA), Thailand
Oct 2013 – Sep 2016	Assistant Professor, Department of Mathematics and Computer Science, RTAFA
Sep 2010 – Sep 2013	Lecturer, Department of Mathematics and Computer Science, RTAFA
Jun 2009 – Aug 2010	Research Fellow, Department of Computer Science, Aberystwyth University, UK
Jun 2007 – Jun 2009	Postdoctoral Research Associate, Department of Computer Science, Aberystwyth University
Jan 2004 – May 2007	Lecturer, Department of Mathematics and Computer Science, RTAFA

### **Research Experiences**

#### Research Projects and Grants:

- PI for research project on ‘Behavior modeling for suspect car detection’ (Research Grant of Defence Technology Institute, Sep 17 – Aug 18)
- Co-I for research project on ‘Big data and machine learning for GOTO data handling’ (Research Grant of STFC-NARIT Newton Fund, Feb 17 – Jan 18)
- Co-I for research project on ‘Smart Airbase Security’ (Research Grant of Royal Thai Air Force, Apr 17 – Mar 18)
- PI for research project on ‘Constrained optimization for adaptive UAV (Unmanned Aerial Vehicle) design’ (Research Grant of Royal Thai Air Force, Oct 15 – Sep 16)
- Senior Research Consultant for research project on ‘Automatic Vehicle Recognition System’ (Research Grant of Defence Technology Institute, Oct 14 – Sep 17)

- PI for project on 'Tactical CCTV Image Analysis & Interpretation for Security Awareness and Anti-Terrorism' (Research Grant by Ministry of Defense, Oct 12 – Sep 14)
- PI for research project on 'Decision Support System for Crime Investigation and Anti-Terrorism: Link Analysis and Evidence Ontology' (Research Grant by Thailand Toray Science Foundation, Apr 14 – Mar 16)
- Co-I for research project on 'Analysis of Student Academic Behavior using Data Mining Techniques' (Research Grant by Mae Fah Luang University, Oct 13 – Feb 14)
- Co-I for project on 'Advanced Ensemble Approach to Improved Face Clustering & Identity Recognition' (Research Grant by Ministry of Science and Technology, Oct 14 – Sep 15)

Academic Supervision of PhD Research Projects:

- '*Cluster-based approach to impute missing values in microarray data*', at Mahanakorn Technology University, Thailand
- '*Behavior modeling for suspect vehicle detection*', at Mahanakorn Technology University, Thailand
- '*A Noise-induced generation of cluster ensemble*', at Mae Fah Luang University, Thailand
- '*An enhanced discretization method*', at Mae Fah Luang University, Thailand
- '*Fuzzy compositional modeling*', at Aberystwyth University, UK
- '*Link-based cluster ensembles*', at Aberystwyth University, UK

Program Committee of Conferences:

- IEEE International Conference on System, Man and Cybernetics, 2012-17
- International Conference on Soft Computing and Intelligent Systems, 2012-14
- IAENG International Multi Conferences of Engineers and Computer Scientists, 2013-17
- World Conference on Information Systems and Technologies, 2013-17
- International Conference on Fuzzy Systems and Knowledge Discovery, 2014-17
- International Conference on Advanced Data and Information Engineering, 2015-17
- Portuguese Conference on Artificial Intelligence, 2015-17
- Asian Conference on Defence Technology, 2016-17
- International Conference on Computational Intelligence in Information Systems, 2016-17

Editor/Reviewer of Journal Publications:

- Associate editor, *Applied Microbiology and Biotechnology (AMB) Express*, Springer (from Jan 2011)
- Editor, American Journal of Intelligent Systems, Scientific and Academic Publishing (from Jun 2012)
- Editor, *International Journal of Collaborative Intelligence*, Inderscience (from Jan 2013)
- Editor, *International Journal of Information and Decision Sciences*, Inderscience (from Apr 2014)
- Editor, *International Journal of Intelligent Systems Technologies and Applications*, Inderscience (from Mar 2015)
- Reviewer of journal publication for *IEEE Transactions on Systems, Man and Cybernetics (Part B)*, *IEEE Transactions on Fuzzy Systems*, *Knowledge Based Systems*, *Expert Systems with Applications*, *International Journal of Machine Learning and Cybernetics*, and *Neural Computing and Applications*.

## **List of Selected Publications**

- T. Boongoen**, Q. Shen and C. Price, "Disclosing false identity through hybrid link analysis," *AI and Law*, 18(1): 77-102, 2010.
- T. Boongoen** and Q. Shen, "Nearest-neighbor guided evaluation of data reliability and its applications," *IEEE Transactions on Systems, Man and Cybernetics, Part B*, 40(6): 1622 – 1633, 2010.
- N. Iam-on, **T. Boongoen** and S. Garrett, "LCE: A link-based cluster ensemble method for improved gene expression data analysis," *Bioinformatics*, 26(12): 1513-1519, 2010.
- X. Fu, **T. Boongoen** and Q. Shen, "Evidence directed generation of plausible crime scenarios with identity resolution," *Applied Artificial Intelligence*, 24(4): 253-276, 2010.
- T. Boongoen**, C. Shang, N. Iam-on and Q. Shen, "Extending Data Reliability Measure to a Filter Approach for Soft Subspace Clustering," *IEEE Transactions on Systems, Man and Cybernetics, Part B*, 41(6): 1705-1714, 2011.
- T. Boongoen**, Q. Shen and C. Price, "Fuzzy qualitative link analysis for academic performance evaluation," *International Journal of Uncertainty, Fuzziness and Knowledge Based Systems*, 19(3): 559-586, 2011.
- N. Iam-on, **T. Boongoen**, S. Garrett and C. Price, "Link-based approach to the cluster ensemble problem," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 33(12): 2396-2409, 2011.
- N. Iam-on, **T. Boongoen**, S. Garrett and C. Price, "A link-based approach to cluster ensemble approach for categorical data clustering," *IEEE Transactions on Knowledge and Data Engineering*, 24(3): 413-425, 2012.
- Q. Shen and **T. Boongoen**, "Fuzzy Orders-of-Magnitude Based Link Analysis for Qualitative Alias Detection," *IEEE Transactions on Knowledge and Data Engineering*, 24(4): 649-664, 2012.
- N. Iam-On and **T. Boongoen**, "A New Locally Weighted K-Means for Cancer-Aided Microarray Data Analysis", *Journal of Medical Systems*, 36(1-Suppl): 43-49, 2012.
- Q. Shen and **T. Boongoen**, "Social Network Inspired Approach to Intelligent Monitoring of Intelligence Data", In *Social Network Mining, Analysis and Research Trends: Techniques and Applications*, edited by I. H. Ting, T. P. Hong and L. S. L. Wang, IGI Global Publisher, pp. 79-100, 2012.
- N. Iam-On, **T. Boongoen**, S. Garrett and C. Price. "New Cluster Ensemble Approach to Integrative Biological Data Analysis", *International Journal of Data Mining and Bioinformatics*, 8(2): 150-168, 2013.
- N. Iam-On and **T. Boongoen**, "Pairwise Similarity for Cluster Ensemble Problem: Link-Based and Approximate Approaches", *Springer Transactions on Large-Scale Data and Knowledge-Centered Systems*, 9: 95-122, 2013.
- N. Iam-On, **T. Boongoen** and Nuttawut Kongkotchawan, "A New Link-Based Method to Ensemble Clustering and Cancer Microarray Data Analysis", *International Journal of Collaborative Intelligence*, 1(1): 45-67, 2014.
- N. Iam-On and **T. Boongoen**, "Soft Subspace Clustering for Cancer Microarray Data Analysis: A Survey", In *Global Trends in Intelligent Computing Research and Development*, edited by B. K. Tripathy and D. P. Acharya, IGI Global Publisher, pp. 131-145, 2014.
- N. Iam-On and **T. Boongoen**, "Comparative Study of Matrix Refinement Approaches for Ensemble Clustering", *Machine Learning*, 98(1-2): 269-300, 2015.
- N. Iam-On and **T. Boongoen**, "Diversity-Driven Generation of Link-Based Cluster Ensemble and Application to Data Classification", *Expert Systems with Applications*, 42(21): 8259-8273, 2015.
- P. Keerin, W. Kurutach, **T. Boongoen**, S. Garrett and C. Price. "A cluster-directed framework for neighbour based imputation of missing value in microarray data", *International Journal of Data Mining and Bioinformatics*, 15(2): 165-193, 2016.
- N. Iam-On and **T. Boongoen**, "Improved Student Dropout Prediction in Thai University using Ensemble of Mixed-Type Data Clusterings", *International Journal of Machine Learning and Cybernetics*, Springer (in press).

# Anant Eungwanichayapant

Date of Birth: 09/05/1974, age 40

Nationality: Thai

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## Specialities

Physics, High Energy Astronomy, Gamma-Ray Astronomy, Mathematical Modelling

## Experience

2004 - Present	Instructor at School of Science, Mae Fah Luang University, Chiang Rai, Thailand
April - May 2009	Visiting researcher, Adelaide University, Adelaide, Australia
April - May 2007	Visiting researcher, Max-Planck-Institut für Kernphysik, Heidelberg, Germany
2003 - 2004	Postdoctoral, Max-Planck-Institut für Kernphysik, Heidelberg, Germany
1998 - 1999	Teacher assistant, Department of Physics, Chulalongkorn University, Bangkok, Thailand

## Education

DR. RER. NAT. in Physics, Ruprecht-Karls Universität Heidelberg , Germany, 2003

M. Sc. in Physics, Chulalongkorn University, Bangkok, Thailand, 1999

B. Sc in Physics, Chulalongkorn University, Bangkok, Thailand, 1997

## Languages

**Thai:** mother tongue

**English:** fluent

## Software Skills

**Programming:** C, Fortran, Python, JAVA

**Data Analysis:** PAW

## Conference Organizer

Mae Fah Luang International Conference 2016 (MFUIC 2016), 23-25 November 2016  
The 14th International Annual Symposium on Computational Science and Engineering (ANSCSE 14),  
24 - 26 March 2010

## Research Projects

“Studying effects of UVB on yield and quality of Oolong tea” July 2008 - July 2010, Granted by Mae Fah Luang University  
“Developing Energy-Saving Ceramic Furnaces for OTOP”, March 2008 - October 2010, Granted by National Research Council of Thailand  
“Observing electron/positron Pair Halos with X-ray”, July 2007 - July 2009, Granted by Thailand Research Fund  
“Studying effects of geographic, micro-climatic and agronomic factors on yield of Chiang Rai teas” , December 2005 - November 2006, Granted by Mae Fah Luang University

## Patents

Eungwanichayapant, A., Mookam, T., Wattanasiriwech, S., and Chuychai, P., 2014 Double Wall Ceramic Kiln. Thailand Patent Application 1401004716 filed August 2014. Patent Pending.

## Publications

Wikee, C., Chuychai, P., Ruffolo, D., Eungwanichayapant, A., and Matthaeus, W.H., "Separation of Charged Particles to Their Initial Magnetic", 1<sup>st</sup> Mae Fah Luang University International Conference (2012)

Wikee, C., Chuychai, P., Ruffolo, D., Eungwanichayapant, A., and Matthaeus, W.H., "The Effect of Initial Pitch Angles of Charged Particles on Their Separation in The Simple 2D+Slab Magnetic Field Model", 38<sup>th</sup> Congress on Science and Technology of Thailand. (2012)

Eungwanichayapant, A, W Maithong, and D Ruffolo. "Synchrotron Radiation from Giant e $\pm$  Pair Halos." *Proceedings of the International Astronomical Union* 7.S284 (2011): 417-419.

Chaleonloop, N., Satayopas, B., and Eungwanichayapant, A., "City Bus Routing Model for Minimal Energy Consumption", *As. J. Energy. Env.* 11(01) (2010): 19 - 31.

Eungwanichayapant, A., and Aharonian, A., "Very High Energy Gamma Rays from e $\pm$  Pair Halos." *International Journal of Modern Physics D* 18.06 (2009): 911-927.

Eungwanichayapant, A., and Aharonian, A., "e $\pm$  Pair Halos: A New Tool for Probing Extragalactic Background Light", Proceeding of the 9<sup>th</sup> Asian-Pacific Regional Meeting (2005): 145 - 146.

Eungwanichayapant, A., and Aharonian, A., "Computing e $\pm$  Pair Halo Energy and Spatial Distribution with Monte Carlo Simulation", Proceeding of the 9<sup>th</sup> ANnual National Symposium on Computational Science and Engineering (2005): 224 - 232.

Eungwanichayapant, A. "Giant Pair Halos Surrounding Non-Thermal Extragalactic Objects." Ph. D. Thesis Ruprecht-Karls Universität Heidelberg (2003).

Eungwanichayapant, A. "Particle Acceleration Mechanisms at Superluminal Shock." M. Sc. Thesis Chulalongkorn University (1999).

# **Curriculum Vitae**

## **Dr. Natthakan Iam-On**

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**Email:** nt.iamon@gmail.com

**Mobile Phone:** 086-8876413

### **Education and Training**

2007 – 2011	PhD in Computer Science, at University of Wales (Aberystwyth), UK Thesis with the title “Link-Based Cluster Ensembles: Theory and Applications” has won the Thesis Award 2012 of National Research Council of Thailand.
2002 – 2004	MSc in Computer Science, at Chiang Mai University, Thailand
1997 – 2001	BSc in Computer Science (with Honour), at Chiang Mai University, Thailand

### **Employment**

2016 – present	Assistant to the President, Mae Fah Luang University, Chiang Rai, Thailand Assistant Professor, School of Information Technology, Mae Fah Luang University
2015 – 2016	Assistant Professor, School of Information Technology, Mae Fah Luang University, Chiang Rai, Thailand
2011 – 2014	Lecturer, School of Information Technology, Mae Fah Luang University, Chiang Rai, Thailand
2007-2011	PhD studentship by the Ministry of Science and Technology, Royal Thai Government.
2005 – 2007	Lecturer, School of Information Technology, Mae Fah Luang University, Chiang Rai, Thailand

### **Teaching Experiences**

Introduction to Information Technology

Computer Programming/Object-Oriented Programming

Algorithm Analysis and Design

Database Systems

Data Warehouse and Data Mining

Human and Information Technology

### **Research Experiences**

Research Projects and Grants:

- Senior Researcher for research project on ‘Tactical CCTV Image Analysis & Interpretation for Security Awareness and Anti-Terrorism’ (Research Grant by Ministry of Defense, Oct 12 – Sep 14)

- Senior Researcher for research project on 'Decision Support System for Crime Investigation and Anti-Terrorism: Link Analysis and Evidence Ontology' (Research Grant by Thailand Toray Science Foundation, Apr 14 – Mar 16)
- Senior Researcher/Team Leader for research project on 'Analysis of Student Academic Behavior using Data Mining Techniques' (Research Grant by Mae Fah Luang University, Oct 13 – Feb 14)
- Senior Researcher/Team Leader for research project on 'Advanced Ensemble Approach to Improved Face Clustering & Identity Recognition' (Research Grant by Ministry of Science and Technology, Oct 14 – Sep 15)

Academic Supervision of Postgrad Research Projects:

- '*CKD Progression Prediction with Diabetes and Hypertension Patients*', at Mae Fah Luang University
- '*Predicting Student Drop-Out using Integrative Analysis of Academic Performance, Learning & Social Behavior*', at Mae Fah Luang University
- '*Graph Clustering Based Discretization*', at Mae Fah Luang University

Program Committee of Conferences:

- IEEE International Conference on System, Man and Cybernetics, 2012
- International Conference on Soft Computing and Intelligent Systems, 2012
- International Conference on System, Man and Cybernetics, 2013
- International Conference on Soft Computing and Data Mining, 2014-16
- Asian Conference on Intelligent Information & Database Systems, 2014
- International Conference on Natural Computation and International Conference on Fuzzy Systems and Knowledge Discovery, 2014-16
- Asian Conference on Information Systems, 2014
- International Conference on Practical Applications of Computational Biology and Bioinformatics, 2015-16
- International Conference on Information Systems Architecture and Technology, 2016
- IEEE International Conference on Bioinformatics and Bioengineering, 2016
- International Joint Conference on Computer Science and Software Engineering, 2016
- Asian Conference on Defence Technology, 2017

Editor/Reviewer of Journal Publications:

- Editor of *International Journal of Data Analysis Techniques & Strategies*, Inderscience
- Editor of *International Journal of Computational Medicine & Healthcare*, Inderscience
- Editor of *International Journal of Multivariate Data Analysis*, Inderscience
- Editor of *International Journal of Image Mining*, Inderscience
- Editor of *International Journal of Business Intelligence and Systems Engineering*, Inderscience
- Editor of International Journal of Rough Sets and Data Analysis, IGI Global
- Reviewer of *IEEE Transactions on Knowledge and Data Engineering*, *Machine Learning, Pattern Recognition, Journal of Machine Learning Research, Information Science, Expert Systems with Applications*, and *Neural Computing and Applications*.

## **List of Selected Publications**

- N. Iam-On** and T. Boongoen, "Improved Student Dropout Prediction in Thai University using Ensemble of Mixed-Type Data Clusterings", *International Journal of Machine Learning and Cybernetics*, Springer (DOI: 10.1007/s13042-015-0341-x).
- N. Iam-On** and T. Boongoen, "Diversity-Driven Generation of Link-Based Cluster Ensemble and Application to Data Classification", *Expert Systems with Applications*, 42(21): 8259–8273, 2015.
- N. Iam-On** and T. Boongoen, "Comparative Study of Matrix Refinement Approaches for Ensemble Clustering", *Machine Learning*, 98(1-2): 269-300, 2015.
- N. Iam-On**, T. Boongoen and N. Kongkotchawan, "A New Link-Based Method to Ensemble Clustering and Cancer Microarray Data Analysis", *International Journal of Collaborative Intelligence*, 1(1): 45-67, 2014.
- N. Iam-On** and T. Boongoen. "Soft Subspace Clustering for Cancer Microarray Data Analysis: A Survey", A chapter in *Global Trends in Intelligent Computing Research and Development*, edited by B. K. Tripathy and D. P. Acharya, IGI Global Publisher, pp. 131-145, 2014.
- N. Iam-On**, T. Boongoen, S. Garrett and C. Price. "New Cluster Ensemble Approach to Integrative Biological Data Analysis", *International Journal of Data Mining and Bioinformatics*, 8(2): 150-168, 2013.
- N. Iam-On** and T. Boongoen, "Pairwise Similarity for Cluster Ensemble Problem: Link-Based and Approximate Approaches", *Springer Transactions on Large-Scale Data and Knowledge-Centered Systems*, 9: 95-122, 2013.
- N. Iam-on**, T. Boongoen, S. Garrett and C. Price, "A link-based approach to cluster ensemble approach for categorical data clustering," *IEEE Transactions on Knowledge and Data Engineering*, 24(3): 413-425, 2012.
- N. Iam-On** and T. Boongoen, "A New Locally Weighted K-Means for Cancer-Aided Microarray Data Analysis", *Journal of Medical Systems*, 36(1-Suppl): 43-49, 2012.
- N. Iam-On**, T. Boongoen and S. Garrett, "A Link-based approach to the cluster ensemble problem", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 33(12): 2396 - 2409, 2011.
- T. Boongoen, C. Shang, **N. Iam-On** and Q. Shen, "Extending Data Reliability Measure to a Filter Approach for Soft Subspace Clustering", *IEEE Transactions on Systems, Man and Cybernetics, Part B*, 41(6): 1705-1714, 2011.
- N. Iam-On**, T. Boongoen and S. Garrett, "LCE: A link-based cluster ensemble method for improved gene expression data analysis", *Bioinformatics*, 26(12): 1513-1519, 2010.
- N. Iam-On** and S. Garrett. "LinkCluE: A MATLAB Package for Link-Based Cluster Ensembles", *Journal of Statistical Software*, 36(9), 2010.
- M. Pattanodom, **N. Iam-On** and T. Boongoen, Clustering Data with the Presence of Missing Values by Ensemble Approach, In Proceedings of Asian Conference on Defence Technology, pp. 114-119, 2016.
- K. Sriwanna, T. Boongoen and **N. Iam-On**, An Enhanced Univariate Discretization Based on Cluster Ensembles, In Proceedings of 19th Asia Pacific Symposium on Intelligent and Evolutionary Systems, pp. 85-98, 2015.
- W. Khannara, **N. Iam-On** and T. Boongoen, Predicting Duration of CKD Progression in Patients with Hypertension and Diabetes, In Proceedings of 19th Asia Pacific Symposium on Intelligent and Evolutionary Systems, pp. 129-141, 2015.
- P. Meedech, **N. Iam-On** and T. Boongoen, Prediction of Student Dropout using Personal Profile and Data Mining Approach, In Proceedings of 19th Asia Pacific Symposium on Intelligent and Evolutionary Systems, pp. 143-155, 2015.
- N. Iam-On** and T. Boongoen, "Improving Face Classification with Multiple Clustering Induced Feature Reduction," In Proceedings of 49th IEEE International Conference on Security Technology, pp. 241-246, 2015.
- N. Iam-On** and T. Boongoen, "Using Cluster Ensemble to Improve Classification of Student Dropout in Thai University," In Proceedings of Joint 7th International Conference on Soft Computing and Intelligent Systems and 15th International Symposium on Advanced Intelligent Systems, pp. 452-457, 2014.



## Current position

- **2016-Present** Researcher, National Astronomical Research Institute of Thailand (NARIT), Thailand

## Education

- **2012-2016** Ph.D. (Astronomy and Astrophysics), The University of Manchester, United Kingdom
  - Thesis: Exomoons to Galactic structure: High precision studies with the microlensing and transit methods
  - Supervisor: Dr. Eamonn Kerins
- **2011-2012** M.Sc. (Astronomy and Astrophysics) (Merit), The University of Manchester, United Kingdom
  - Thesis: The detectability of habitable exomoons with Kepler
  - Supervisor: Dr. Eamonn Kerins
- **2006-2010** B.S. (Physics) (*First class honors*), Chiang Mai University, Thailand
  - Thesis: Variation in orbital period of W UMa-type contact binaries
  - Supervisor: M.L. Aniwat Sooksawat

## Scholarships

- **2012-2015** President's Doctoral Scholar Awards (PDS), The University of Manchester, United Kingdom
- **2011-2016** The Royal Thai Government Scholarship, Ministry of Science and Technology, Thailand
- **2008-2011** Junior Science Talent Project (JSTP) Scholarship, Ministry of Science and Technology, Thailand
- **2006-2010** Development and Promotion of Science and Technology talent project (DPST) scholarship  
Ministry of Education, Thailand

## Research experiences

- **2016-Present** Researcher
  - Perform transit timing variation and transmission spectroscopy analyses of Neptune-like exoplanets
  - Perform transiting exoplanet follow-up observations with the KELT follow-up team
  - Perform microlensing exoplanet follow-up observations with the Gaia follow-up team
  - Develop automated selection program for transiting exoplanet observation
  - Determine effect of photocentric transit timing variation and photocentric transit duration variation of exomoon
- **2011-2016** Postgraduate research
  - Advisor: Dr. Eamonn Kerins (University of Manchester)
  - Performed transit timing variation and transmission spectroscopy analyses of hot Neptune GJ3470b
  - Determined the detectability of habitable exomoons with Kepler-class photometry
  - Developed Manchester-Besançon microlensing Simulator (MaBuLS; see <http://www.mabuls.net>)
  - Confronted Galactic structure with MOA-II and MaBuLS microlensing data
- **2010** Visiting scientist
  - Advisor: Dr. Elisa Bernardini (DESY Zeuthen)
  - Performed statistical study of long term Gamma-Ray data from BL Lac objects

- **2008-2010 Undergraduate research**
  - Advisor: M.L. Aniwat Sooksawat and Dr. Siramas Komonjinda (Chiang Mai University)
  - Determined variation in orbital period of W-UMa type contact binaries
  - Performed photometric study of the contact binary EQ Tauri

## Publication list

- D.E. Mrktichian, N. A-thano and **S. Awiphan**, *Discovery of short-period oscillations in the mass-accreting component of BD Vir*, 2017, IBVS, 63, 6209
- **S. Awiphan**, E. Kerins, S. Pichadee, et al., *Transit timing variation and transmission spectroscopy analyses of hot Neptune GJ3470b*, 2016, MNRAS, 463, 2574
- **S. Awiphan**, E. Kerins and A.C. Robin, *Besancon Galactic model analysis of MOA-II microlensing: evidence for a mass deficit in the inner bulge*, 2016, MNRAS, 456, 1666
- **S. Awiphan** and E. Kerins, *The detectability of habitable exomoons with Kepler*, 2013, MNRAS, 432, 2549

## Proceedings

- S. Pichadee, S. Komonjinda, **S. Awiphan**, E. Kerins, W. Rujopakarn and S. Poshyachida, *Photometric observation and analysis of hot Uranus Exoplanet GJ3470b by transit method*, 2015, Siam Physics Congress 2015
- **S. Awiphan**, E. Bernardini and K. Satalecka, *Statistical study of long term Gamma-Ray data*, 2011, The 11<sup>th</sup> Asian-Pacific regional IAU Meeting (APRIM2011)
- **S. Awiphan** and S. Komonjinda, *Variation in orbital period of contact binaries*, 2011, Siam Physics Congress 2011
- **S. Awiphan**, S. Komonjinda and A. Sooksawat, *A photometric study of the contact binary EQ Tauri*, 2010, Siam Physics Congress 2010
- **S. Awiphan**, S. Komonjinda and A. Sooksawat, *Variation in orbital period of W-UMa type contact binaries*, 2010, The 5<sup>th</sup> Conference on Science and Technology for Youth, Thailand
- **S. Awiphan**, S. Rattanasoon and A. Sooksawat, *Variation in orbital period of W-UMa type contact binaries*, 2009, Siam Physics Congress 2009

## Awards

### 2015

- **Highly recommended in Pure Science**, Anglo-Thai Society Education Awards 2015, United Kingdom

### 2010

- **Thailand representative of DESY Summer Student Programme 2010**, selected by HRH Princess Maha Chakri Sirindhorn, Thailand
- **Winner prize in the 3<sup>rd</sup> Thailand undergraduate student research project in Physics**, Thai Physics Society
- **Best score of Bachelor Degree in Physics students**, Faculty of Science, Chiang Mai University, Thailand
- **Winner prize in oral presentation in Physics**, Faculty of Science, Chiang Mai University, Thailand

### 2008

- **Best score of the year in Physics students**, Faculty of Science, Chiang Mai University, Thailand

### 2007

- **Best score of the year in first year students**, Faculty of Science, Chiang Mai University, Thailand

### 2004

- **Silver medal and the best in practical**, The 1<sup>st</sup> Thai Astronomy Olympiad, Thailand
- **Honorable mentions**, The 3<sup>rd</sup> Thai Physics Olympiad, Thailand

# **Curriculum Vitae**

## **Krzysztof Ulaczyk**

**Date and place of birth:** October 11, 1981, Warszawa, Poland  
**Citizenship:** Polish

### **Work address:**

The University of Warwick  
Department of Physics  
Coventry CV4 7AL  
UK  
e-mail: k.p.ulaczyk@warwick.ac.uk

### **EDUCATION:**

The University of Warsaw, Warszawa, Poland	2005 – 2010
Graduate student at Warsaw University Astronomical Observatory	
Ph.D. thesis title: "The photometric survey of bright objects in the Large Magellanic Cloud"	
Ph.D. thesis advisor: Prof. Michał Szymański	
Ph.D. degree in Astrophysics: June, 2012	
The University of Warsaw, Warszawa, Poland	2000 – 2005
Faculty of Physics, specialisation: Astronomy	
M.Sc. thesis title: "Stellar clusters and associations in nearby galaxies"	
M.Sc. thesis advisor: Dr. Grzegorz Pietrzyński	
Magister of Astronomy (M.Sc.): July, 2005	
Faculty of Physics scholarship for outstanding results (graduate studies)	
Faculty award for the best M.Sc. thesis in the academic year 2004/2005	

### **EMPLOYMENT:**

The University of Warsaw, Warszawa, Poland	2010 – 2014
Astronomical Observatory	
Engineering technician	
OGLE team member since 2004	
The University of Warwick, UK	2015 – present
Department of Physics	
Research fellow	

### **RESEARCH INTERESTS:**

Observational astronomy – detection and analysis of variable stars and transient objects, wide-field surveys, photometric surveys, extrasolar planets research, various methods of distances measurement, studies of stellar clusters and galactic structure, stellar populations analysis.

### **OBSERVING / DATA REDUCTION EXPERIENCE:**

The 1.3 m OGLE Telescope (25 runs; ~3 weeks each)  
Las Campanas Observatory, Chile

The 1.52 m Cassini Telescope  
Astronomical observatory of Bologna in Loiano, Italy

The 0.6 m Telescope  
Ostrowik Observatory, Poland

Data analysis: IRAF, Daophot, DoPhot, SExtractor, DIA, etc.; images from OGLE telescope, VLT, HST, etc.

**MISCELLANEOUS:**

Programming: C, Python, Fortran, PHP; tcsh & bash scripting, HTML&CSS coding

Languages: Polish – native, English – fluent, Spanish – communicative

Driving license: category B (since 1999, Polish&international, clean)

Hobbies and interests: photography, voyages to remote places, computer graphics and animation

## PUBLICATIONS:

As first author:

"Photometric Maps Based on the OGLE-III Shallow Survey in the Large Magellanic Cloud", K. Ulaczyk, M.K. Szymański, A. Udalski, M. Kubiak, G. Pietrzyński, I. Soszyński, Ł. Wyrzykowski, R. Poleski, W. Gieren, A.R. Walker and A. Garcia-Varela, *AcA*, 2012, 62, 247

"Variable Stars from the OGLE-III Shallow Survey in the Large Magellanic Cloud", K. Ulaczyk, M.K. Szymański, A. Udalski, M. Kub iak, G. Pietrzyński, I. Soszyński, Ł. Wyrzykowski, R. Poleski, W. Gieren, A.R. Walker and A. Garcia-Varela, *AcA*, 2013, 63, 159

Others (184 in total, showing latest 7):

"Anomalous double-mode RR Lyrae stars in the Magellanic Clouds", Soszyński, I., Smolec, R., Dziembowski, W. A., Udalski, A., Szymański, M. K., Wyrzykowski, Ł., Ulaczyk, K., Poleski, R., Pietrukowicz, P., Kozłowski, S., Skowron, D., Skowron, J., Mróz, P., and Pawlak, M., 2016, *MNRAS*, 463, 1332

"Liverpool Telescope follow-up of candidate electromagnetic counterparts during the rst run of Advanced LIGO", Copperwheat, C. M., Steele, I. A., Piascik, A. S., Bersier, D., Bode, M. F., Collins, C. A., Darnley, M. J., Galloway, D. K., Gomboc, A., Kobayashi, S., and 10 colleagues, 2016, *MNRAS*, 462, 3528

"OGLE-2015-BLG-0051/KMT-2015-BLG-0048Lb: A Giant Planet Orbiting a Low-mass Bulge Star Discovered by High-cadence Microlensing Surveys", Han, C., Udalski, A., Gould, A., Bozza, V., Jung, Y. K., Albrow, M. D., Kim, S.-L., Lee, C.-U., Cha, S.-M., Kim, D.-J., and 15 colleagues, 2016, *AJ*, 152, 95

"The awakening of a classical nova from hibernation", Mróz, Przemek, Udalski, Andrzej, Pietrukowicz, Paweł, Szymański, Michał K., Soszyński, Igor, Wyrzykowski, Łukasz, Poleski, Radosław, Kozłowski, Szymon, Skowron, Jan, Ulaczyk, Krzysztof, Skowron, Dorota, and Pawlak, Michał, 2016, *Natur*, 537, 649

"OGLE-2015-BLG-0479LA,B: Binary Gravitational Microlens Characterized by Simultaneous Ground-based and Space-based Observations", Han, C., Udalski, A., Gould, A., Zhu, Wei, Street, R. A., Yee, J. C., Beichman, C., Bryden, C., Calchi Novati, S., Carey, S., and 58 colleagues, 2016, *ApJ*, 828, 53

"Space-based Microlens Parallax Observation as a Way to Resolve the Severe Degeneracy between Microlens-parallax and Lens-orbital E ects", Han, C., Udalski, A., Lee, C.-U., Gould, A., Bozza, V., Szymański, M. K., Soszyński, I., Skowron, J., Mróz, P., Poleski, R., and 18 colleagues, 2016, *ApJ*, 827, 11

"Supplement: "Localization and Broadband Follow-up of the Gravitational-wave Transient GW150914" (2016, *ApJL*, 826, L13)", Abbott, B. P., Abbott, R., Abbott, T. D., Abernathy, M. R., Acernese, F., Ackley, K., Adams, C., Adams, T., Addesso, P., Adhikari, R. X., and 1567 colleagues, 2016, *ApJS*, 225, 8

# **Curriculum Vitae**

**Surapong UTTAMA, Ph.D.**  
[surapong@mfu.ac.th](mailto:surapong@mfu.ac.th)

## **Current Address:**

School of Information Technology  
Mae Fah Luang University  
333 Moo1 Tasud Muang  
Chiang Rai, Thailand 57100  
Tel. 053916758

## **Education**

Postdoctoral Research in Computer Science, University of La Rochelle, France.  
(with the support of French Government)  
Ph.D. (Computer Science), University of La Rochelle, France.  
M.Eng. (Structural Engineering), Asian Institute of Technology, Thailand  
B.Eng. (Civil Engineering), Chulalongkorn University, Thailand  
B.A. (Administration), Sukhothai Thammathirat Open University, Thailand

## **Working Experience**

1999-present	Lecturer of School of Information Technology, Mae Fah Luang University
November 2014-October 2015	Head of Computer Science Department, School of Information Technology, Mae Fah Luang University
August 2012-October 2014	Acting Dean of School of Information Technology, Mae Fah Luang University
January 2008-current	Member of Academic Council of Mae Fah Luang University
April 2010-September 2011	Assistant Dean of School of Information Technology, Mae Fah Luang University
May 2009- September 2011	Acting Director of French-Upper Mekong Sub-region Academic Cooperation Centre
January 2008-September 2012	Head of Computer Science Department, School of Information Technology, Mae Fah Luang University
February-April 2009	Acting Director of French-Upper Mekong Sub-region Academic Cooperation Centre

## **Areas of Specialty**

Image and Video Processing (Document Image Analysis, Remote Sensing, Object/Scene Recognition)  
Computer Vision and Machine Learning  
Intelligent Information Retrieval  
Mobile Technology

## **Publications**

- Suwitchaya Rattarom, Nattapol Aunsi and Surapong Uttama, *Validation of the Polynomial Models in the Interpolation Based Gaze Estimation*, The 1<sup>st</sup> International Conference on Digital Arts, Media and Technology (ICDAMT), 17-20 February 2016.
- Surapong Uttama, *Application of Remote Sensing to Automatic Forest Analysis: A Case Study of Mae Fah Luang University*, Research Project, Funded by Mae Fah Luang University 2015.
- Suwitchaya Rattarom, Nattapol Aunsi and Surapong Uttama, *Interpolation Based Polynomial Regression for Eye Gazing Estimation: A Comparative Study*, 12th International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON 2015), 24-27 June 2015.
- Adisorn Wongwan and Surapong Uttama, *Adaptive Neuro-Fuzzy Inference System for Student Allocation in Cooperative Education*, 1<sup>st</sup> Mae Fah Luang University International Conference, MFUIC 2012, 1 December 2012.
- Nattapong Musikaappatum and Surapong Uttama, *Integration of Classification Techniques under Size Constraint: A Case Study of Electoral Districting*, 1<sup>st</sup> Mae Fah Luang University International Conference, MFUIC 2012, 1 December 2012.
- Adisorn Wongwan and Surapong Uttama, The Expert System for Student Allocation in Work Integrated learning, 5<sup>th</sup> International Conference on Software Technology and Engineering, ICSTE 2013, 1-2 September 2012.
- Nattapong Musikaappatum and Surapong Uttama, Classification under Class Size Constraint: Application to Electoral Districting, 5<sup>th</sup> International Conference on Software Technology and Engineering, ICSTE 2013, 1-2 September 2012.
- Surapong Uttama, Mickael Coustaty and Jean-Marc Ogier, *Feature Extraction for Historical Image Indexing and Matching*, Colloque International Francophone sur l'Écrit et le Document 2012, CIFED 2012, 21-23 March 2012.
- Nattapong Musikaappatum, Surapong Uttama and Roungsan Chaisricharoen, *The area division of the local election using GIS with k-nearest neighbor classifier*, International Conference on Embedded Systems and Intelligent Technology, ICESIT2012, January 27-29 2012.
- Adisorn Wongwan and Surapong Uttama, *Automatic Student Allocation System for Cooperative Education*, International Conference on Embedded Systems and Intelligent Technology, ICESIT2012, January 27-29 2012.
- Surapong Uttama and Nathapornpan Uttama, *Location Decision of Hand-Woven Textile Distribution Center using Cluster Analysis and Attractive Model*, The 5<sup>th</sup> UBU Conference Proceeding, August 2011.
- Surapong Uttama, *A Framework for Ancient Document Valorization*, The 8<sup>th</sup> ICT-Asia Seminar, June 2011.
- Surapong Uttama, *Detection of A Size Threshold to Process Large Size Images*, 15<sup>th</sup> International Annual Symposium on Computational Science and Engineering (ANSCSE15), April 2011.
- Surapong Uttama and Nathapornpan Uttama, *Location Decision for hand-woven textile distribution center in Chiang Rai: An application of cluster analysis*, Payap University Research Symposium, February 2011.

# Justyn Robert Maund

Department of Physics and Astronomy  
University of Sheffield  
Hicks Building, Hounsfield Road  
Sheffield  
S3 7RH UK

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**Fax:** +44 (0) 114 222 3555  
**Web:** <http://jmaund.staff.shef.ac.uk>

## EMPLOYMENT

**Royal Society Research Fellow** University of Sheffield, U.K.

2014 -

Astrophysics Research Centre, Queen's University, Belfast, U.K.

2011-2014

**Sophie & Tycho Brahe Fellow** Dark Cosmology Centre, Niels Bohr Institute, University of Copenhagen, Copenhagen, Denmark and the Dept. of Astronomy, University of California, Santa Cruz, U.S.A.

2008-2011

**Post-doctoral Fellow** Dept. of Astronomy, University of Texas, Austin, U.S.A. 2005-2008

## EDUCATION

**PhD** Institute of Astronomy and Trinity College, Cambridge U.K. 2002-2005  
PhD Research: The Observed Nature of the Progenitors of Core-Collapse Supernovae  
Supervisor: Stephen J. Smartt

**MSci** University College, London U.K. 1998-2002  
Astrophysics 1st Class Honours  
Research Thesis: Wolf-Rayet Stars in the Galaxy and LMC  
Supervisor: Paul Crowther

## AWARDS & GRANTS

- Royal Society Research Fellowship Extension (£270,875.09) 2016
- Royal Society Research Fellowship (£440,228) 2011
- Science and Technology Facilities Council Advanced Fellowship (£458,500 - declined) 2011
- Award for Research Excellence NBI/DARK (£2,000) 2010
- Københavns Universitet Faculty Research Grant Program (£83,000) 2008
- STScI grant GO10803 *Detecting the Progenitors of Core-collapse SNe* (£31,114) 2006
- PPARC Research Studentship for PhD research 2002 - 2005
- Trinity College Eddington Bursary 2003, 2005
- Herschel Prize, UCL 2002
- UCL Research Studentship, *The Sub-dwarf WR star HD45166* 2001
- Best Performance in Astrophysics Prize, UCL 2001
- Selected competitively from global applications to attend inaugural PPARC Summer School in Cambridge 2000
- Halley Prize, UCL 1999

## TELESCOPE TIME AWARDS

- European Southern Observatory Very Large Telescope - 71 hours as PI (including 6 hours of Director's Discretionary Time) and 94.9 hours as Co-I
- Hubble Space Telescope - 88 orbits (7 separate programs as PI) and 37 orbits (4 separate programs as Co-I).

## SELECTED TALKS

- Munich Institute for Astro- and Particle Physics (MIAPP) Summer Programme, Garching, Germany, *Direct Observations of the Progenitors of Supernovae*, August 2016, **Invited**
- "Stellar Populations Newton Meeting", Sao Paulo, Brazil, *Supernova Progenitors*, December 2015, **Invited**
- New York University, Center for Cosmology and Particle Physics seminar, November 2015, **Invited**
- Geneva Observatory seminar, *The progenitors of supernovae*, August 2015, **Invited**
- IAU General Assembly Focus Meeting 16, Stellar Behemoths, Honolulu, USA, *Red Supergiants as the Progenitors of Type IIP Supernovae*, August 2015, **Invited**
- Southampton, Physics and Astronomy departmental colloquium, "The Shapes of Supernovae", November 2014, **Invited**
- Warwick Astronomy seminar, *Red supergiants as the progenitors of supernovae*, November 2013, **Invited**
- Liverpool John Moores Astronomy seminar, *Red supergiants as the progenitors of supernovae*, November 2013, **Invited**
- "European Week of Astronomy and Space Science", Deaths of massive stars as supernovae and gamma-ray bursts Symposium, Turku, Finland, *The Progenitors of Core-collapse Supernovae*, July 2013, **Invited Review**
- "Supernovae Illuminating the Universe: From Individuals to Populations", Garching, Germany, *The Progenitors of Core-collapse Supernovae*, September 2012, **Invited Review**
- "European Week of Astronomy and Space Science", Symposium 7, Core-collapse Supernovae, Rome, Italy, *A Late-time View of the Progenitors of Core-collapse Supernovae*, July 2012, **Invited Review**
- "Relativistic Jets in the Universe", Copenhagen Denmark, *Asymmetries in Core-collapse Supernovae: The evidence for jets*, August, 2011
- "Stellar Death and Supernovae", KITP, Santa Barbara, U.S.A., *Spectropolarimetry of Core-collapse Supernovae*, August 2009, **Invited Review**
- Lund Observatory Colloquium, *The Progenitors of Core-collapse Supernovae*, January 2009, **Invited**
- Tuorla Observatory Colloquium, *The Progenitors of Core-collapse Supernovae*, May 2009, **Invited**
- "Probing Stellar Populations out to the Distant Universe", Cefalù, Italy, *The Progenitors of Core-collapse Supernovae*, September 2008, **Invited Review**
- AAS 209<sup>th</sup> meeting, *VLT FORS1 Spectropolarimetry of Core-Collapse Supernovae*, January 2007
- 3CAS meeting on Supernovae and Compact Objects, **Invited Review**, *The Progenitors of Supernovae*, December 2006
- Carnegie Observatories Colloquium *The Observed Nature of the Progenitors of Core-collapse Supernovae*, **Invited** January 2005

# Publication List

## Justyn Robert Maund

H-INDEX=34, 3644 CITATIONS  
ORCID.ORG/0000-0003-0733-7215

### REFEREED PUBLICATIONS

75. Thöne, C. C., de Ugarte Postigo, A., Leloudas, G., Gall, C., Cano, Z., Maeda, K., Schulze, S., Campana, S., Wiersema, K., Groh, J., de la Rosa, J., Bauer, F. E., Malesani, D., **Maund, J.R.**, Morrell, N., Beletsky, Y., 2016, MNRAS, submitted, arXiv:1606.09025  
*SN 2015bh: NGC 2770's 4th supernova or a luminous blue variable on its way to a Wolf-Rayet star?*
- \*74. Eldridge, J.J., **Maund, J.R.**, 2016, MNRAS, 461, L117 \*
- The disappearance of the helium-giant progenitor of the Type Ib supernova iPTF13bvn and constraints on its companion*
- \*73. Stevance, H. F., **Maund, J. R.**, Baade, D., Höflich, P., Patat, F., Spyromilio, J., Wheeler, J. C., Clochchiatti, A., Wang, L., Yang, Y., Zelaya, P., 2016, MNRAS, 461, 2019 \*
- Spectropolarimetry of the Type I Ib SN 2008aq*
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