

# Tri L. Astraatmadja

## Curriculum vitae

Space Telescope Science Institute  
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### Education

- 2008–2012 **PhD in Astroparticle Physics**, Universiteit Leiden, The Netherlands.  
Dissertation titled *Starlight beneath the waves: In search of TeV photon emission from Gamma-Ray Bursts with the ANTARES Neutrino Telescope*, advised by Prof. dr. Maarten de Jong.
- 2006–2008 **MSc in Astronomy**, Universiteit Leiden, The Netherlands.  
Master's thesis titled *Kinematics and stellar population studies of the galactic bulge*, advised by Prof. dr. Koenraad Kuijken. Minor research project titled *Detecting hypervelocity star candidates using astrometric data*, advised by dr. Anthony G.A. Brown and dr. Yuri Levin.
- 1999–2006 **BSc in Astronomy**, Institut Teknologi Bandung (ITB), Indonesia.  
Bachelor's thesis titled *Local stellar kinematics based on Hipparcos data*, advised by dr. Moedji Raharto.

### Professional appointments

- 2020–current **Postdoctoral Fellow**, Space Telescope Science Institute (STScI), Baltimore MD, United States.
- 2016–2020 **Thompson Postdoctoral Fellow**, Earth and Planets Laboratory (EPL), Carnegie Institution for Science, Washington DC, United States.
- 2012–2016 **Postdoctoral Fellow**, Max Planck Institute for Astronomy (MPIA), Heidelberg, Germany.
- 2008–2012 **PhD candidate**, National Institute for Subatomic Physics (Nikhef), Amsterdam, The Netherlands.

### Scientific skills

- Statistics Probability theory, statistical inferences, hypothesis testing in Frequentist and Bayesian paradigm.
- Data analysis Model fitting (general least-squares regression, poisson regression, robust fit) and selection (e.g. cross-validation, likelihood ratio tests), optimization techniques, various Markov Chain Monte Carlo techniques, and machine-learning algorithms e.g. Support Vector Machine (SVM).
- Instruments Instrument modelling and simulations, particularly convolution of input spectra with instrument profile to generate observable spectra.

### Computer skills

- Programming Software development experiences in Java; fluency and experiences in C++, Python, FORTRAN, Root, and IDL. Eclipse IDE and vi user.
- Querying Experiences in SQL, ADQL, and TOPCAT as a part of software development, or to execute queries of the SDSS Catalog Archive Server (CAS) or the *Gaia* Archive.
- Versioning Experiences in git (github and gitlab) and SVN for version control.
- Issue tracking Experiences in using Mantis and JIRA in managing bug-related issues.
- Dependencies Experiences in using Apache Ivy for dependency management.

- Scripting Daily usage of `bash`, `awk`, `sed`, `grep`, `cron`, and other Unix tools for various tasks.
- Computing Experiences with batch processing (e.g. `qsub`, `slurm`) and grid computing.
- Image processing Experiences in IRAF and DAOPHOT for image reduction and aperture photometry, experiences with the `fitsio` package in Python and the `nom.tam.fits` package in Java.

## Languages

Indonesian (native), English (fluent), Dutch (fluent), French (fluent), and German (fluent).

## Research experiences

- 2016–current **Ground-based astrometric detection of exoplanets**, Carnegie EPL.  
Managing and developing the entire Carnegie Astrometric Planet Search (CAPS) data analysis pipeline. Conducting observation runs with a cadence of roughly 4–5 nights every two months.
- 2013–current **Estimating distances from parallaxes**, MPA Heidelberg & Carnegie EPL.  
Developing Bayesian estimation method of distances from parallaxes and also in combination with photometric data. Distance estimation of stars in the *Gaia* Data Release 1 catalog.
- 2012–2016 **Software development for the *Gaia* mission**, MPA Heidelberg.  
Managing and developing a work-package used for analysis of unresolved physical binaries detected by *Gaia*. Building and developing a software to simulate spectra as observed by *Gaia*.
- 2008–2012 **Detecting TeV  $\gamma$ -rays from GRBs with the ANTARES Neutrino Telescope**, Nikhef.  
PhD research project. Exploring the possibility of operating a neutrino telescope as a  $\gamma$ -ray telescope. Estimation of the expected number of events and studies of the detector sensitivity.
- 2008 **Kinematics and stellar population studies of the galactic bulge**, Leiden Observatory.  
MSc's thesis. Photometric and kinematical analysis of stars in one of the selected *Hubble* WFPC2 images of the Galactic Bulge. Decontamination of bulge stars from foreground stars.
- 2006–2007 **Detecting hypervelocity stars in astrometric catalogs**, Leiden Observatory.  
MSc minor research project. Using knowledge of the kinematics of Hypervelocity Stars (HVS) to develop search criteria for HVS within an astrometric catalog, and applies them to *Hipparcos*.

## Observing experiences

- 2016–2020 **Irénée du Pont 100-inch telescope, Las Campanas Observatory, Chile.**  
17 observing runs totalling 66 nights of CAPS observations, including 1 on-site run.
- 2008–2012 **ANTARES Neutrino Telescope, shore station in La Seyne-sur-Mer, France.**  
6 shifts (1 week each), including 2 on-site shifts.

## Teaching experiences

- 2003–2004 **Undergraduate teaching assistant**, *Computational Astronomy*, Dept. of Astronomy, Institut Teknologi Bandung (ITB), Indonesia.  
Teaches introduction to coding, root-finding methods, numerical integration, linear algebra, regression, and solving differential equations.
- 2003 **Undergraduate teaching assistant**, *Elementary Laboratory Physics*, Dept. of Physics, Institut Teknologi Bandung (ITB), Indonesia.  
Topics covered are, among others, viscosity, springs, standing waves, and electromagnetism.

## Publication summary

Author of 7 peer-reviewed papers in international journals, including 2 as a first author and 1 as a single author. Co-author of 11 *Gaia* peer-reviewed papers and 26 ANTARES peer-reviewed papers. A complete list can be seen on page 5.

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## Recent talks (past 3 years)

### Invited talks

- Oct 2018 **Ground-based astrometric search for exoplanets with CAPSCam**, *Astronomy Colloquium*, Institut Teknologi Bandung (ITB), Indonesia.
- Apr 2018 **The *Gaia* mission: How it works and an overview of the second data release**, *Astronomy Seminar*, Earth and Planets Laboratory (EPL), Carnegie Institution for Science, Washington DC.
- Mar 2018 **Detecting exoplanets with ground-based astrometry**, *Carnegie DTM Seminar*, Earth and Planets Laboratory (EPL), Carnegie Institution for Science, Washington DC.

### Contributed talks

- Oct 2019 **Ground-based astrometric detection of exoplanets with CAPSCam**, *Brown Dwarf to Exoplanet Connection (BDExoCon) III*, University of Delaware, Newark DE.
- May 2019 **Ground-based astrometric detection of exoplanets with CAPSCam**, *Chesapeake Bay Area Exoplanet Meeting (CHEXO) Meeting*, Applied Physics Laboratory (APL), Laurel MD.
- Mar 2018 **Ground-based astrometric detection of exoplanets with CAPSCam: The data analysis pipeline**, *Science with Precision Astrometry Workshop*, Space Telescope Science Institute (STScI), Baltimore MD.

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## Awards

### Fellowships and scholarships

- 2016 **Thompson Postdoctoral Fellowship**, \$200 000.  
Fellowship donated by the David W. Thompson Family Fund for support of the Carnegie Astrometric Planet Search (CAPS) program.
- 2006 **Leids Universiteits Fonds (LUF) Scholarship**, €9000.  
Awarded to excellent international students who want to pursue an English-language Master study at Leiden University. One of four recipients.

### Awards and honors

- 2015 **Global Neutrino Network (GNN) Dissertation Prize**, €300.  
Awarded by a partnership of four neutrino telescope experiments (ANTARES, Baikal, IceCube, and KM3NeT) for the best PhD dissertation. Shared with two other winners.
- 2005 **Dean's List of Academic Excellence**, Faculty of Mathematics and Natural Sciences, Institut Teknologi Bandung (ITB).

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## Professional services

- 2017–present **NASA proposal reviewer**  
Regular proposal reviewer for the NASA Earth and Space Science Fellowship Program (NESSF), panelist for the 2017 NASA Astrophysics Data Analysis Program (ADAP).
- 2017 **Chambliss Judge**, American Astronomical Society (AAS).  
Judge for the Chambliss Astronomy Achievement Student Awards for the best student poster presentation at the American Astronomical Society (AAS) meetings.
- 2013–present **Referee**, Monthly Notices of the Royal Astronomical Society (MNRAS) and The Astrophysical Journal (ApJ).  
Reviews papers about high-energy astrophysics, data analysis, and galactic structure.

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## Public outreach activities

- May 2018 **DC Passport**, Chilean Ambassador's Residence, Washington DC.  
Participates in the promotion of astronomy in Chile as a part of the DC Passport Day, a day where embassies in Washington DC open their doors to the public.
- 2017–current **Regular contributor**, Science section of Indoprogress.  
Indoprogress.com is a web-based media of progressive thoughts in Indonesia. Average monthly readership is ~2 700 000 views.
- Jun 2015 **MPIA open day**, Max Planck Institute for Astronomy (MPIA), Heidelberg, Germany.
- 2007–current **Co-founder, editor, and regular contributor**, langitselatan.com.  
langitselatan.com is a popular astronomy website in Indonesia and is a part of the Universe Awareness (UNAWA) network. Average monthly readership is ~100 000 views.

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## Professional memberships

- 2016–present **American Astronomical Society (AAS)**  
Member of Division for Planetary Sciences (DPS) and Historical Astronomy Division (HAD)
- 2015–present **International Astronomical Union (IAU)**  
Member of Division B (Facilities, Technologies and Data Science), Division C (Education, Outreach and Heritage), Division D (High Energy Phenomena and Fundamental Physics), and Division H (Interstellar Matter and Local Universe)
- 2007–present **Royal Netherlands Astronomical Society**  
Known in Dutch as Koninklijke Nederlandse Astronomenclub (KNA), the organization was formerly known as the Netherlands Astronomical Society or Nederlandse Astronomenclub (NAC) until May 2019.

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## References

### Dr. Coryn Bailer-Jones

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### Dr. Alan P. Boss

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### Dr. Alycia J. Weinberger

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# Tri L. Astraatmadja

## List of publications

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### Refereed publications with significant contributions

- Dieterich S. B., Weinberger A. J., Boss A. P., Henry T. J., Jao W.-C., Gagné J., **Astraatmadja T. L.**, Thompson M. A., Anglada-Escudé G. 2018. *Dynamical Masses of  $\epsilon$  Indi B and C: Two Massive Brown Dwarfs at the Edge of the Stellar-substellar Boundary*. **ApJ** **865(1)**: 28, doi:10.3847/1538-4357/aadadc
- Boss A. P., Weinberger A. J., Keiser S. A., **Astraatmadja T. L.**, Anglada-Escude G., Thompson I. B. 2017. *Astrometric Constraints on the Masses of Long-period Gas Giant Planets in the TRAPPIST-1 Planetary System*. **AJ** **154**: 103, doi:10.3847/1538-3881/aa84b5
- Astraatmadja T. L.**, Bailer-Jones C. A. L. 2016a. *Estimating Distances from Parallaxes. II. Performance of Bayesian Distance Estimators on a Gaia-like Catalogue*. **ApJ** **832**: 137, doi:10.3847/0004-637X/832/2/137
- Astraatmadja T. L.**, Bailer-Jones C. A. L. 2016b. *Estimating Distances from Parallaxes. III. Distances of Two Million Stars in the Gaia DR1 Catalogue*. **ApJ** **833**: 119, doi:10.3847/1538-4357/833/1/119
- Soto M., Zeballos H., Kuijken K., Rich R. M., Kunder A., **Astraatmadja T.** 2014. *Proper motions for HST observations in three off-axis bulge fields*. **A&A** **562**: A41, doi:10.1051/0004-6361/201117339
- Bailer-Jones C. A. L., Andrae R., Arcay B., **Astraatmadja T.**, Bellas-Velidis I. et al. 2013. *The Gaia astrophysical parameters inference system (Apsis). Pre-launch description*. **A&A** **559**: A74, doi:10.1051/0004-6361/201322344
- Astraatmadja T. L.** 2011. *On the detection of TeV  $\gamma$ -rays from GRB with  $km^3$  neutrino telescopes - I. Muon event rate from single GRBs*. **MNRAS** **418**: 1774–1786, doi:10.1111/j.1365-2966.2011.19598.x

### Gaia refereed publications

- Gaia Collaboration, Eyer L., Rimoldini L., Audard M., Anderson R. I. et al. 2019. *Gaia Data Release 2. Variable stars in the colour-absolute magnitude diagram*. **A&A** **623**: A110, doi:10.1051/0004-6361/201833304
- Gaia Collaboration, Babusiaux C., van Leeuwen F., Barstow M. A., Jordi C. et al. 2018a. *Gaia Data Release 2. Observational Hertzsprung-Russell diagrams*. **A&A** **616**: A10, doi:10.1051/0004-6361/201832843
- Gaia Collaboration, Brown A. G. A., Vallenari A., Prusti T., de Bruijne J. H. J. et al. 2018b. *Gaia Data Release 2. Summary of the contents and survey properties*. **A&A** **616**: A1, doi:10.1051/0004-6361/201833051
- Gaia Collaboration, Helmi A., van Leeuwen F., McMillan P. J., Massari D. et al. 2018c. *Gaia Data Release 2. Kinematics of globular clusters and dwarf galaxies around the Milky Way*. **A&A** **616**: A12, doi:10.1051/0004-6361/201832698
- Gaia Collaboration, Katz D., Antoja T., Romero-Gómez M., Drimmel R. et al. 2018d. *Gaia Data Release 2. Mapping the Milky Way disc kinematics*. **A&A** **616**: A11, doi:10.1051/0004-6361/201832865

- Gaia Collaboration, Mignard F., Klioner S. A., Lindegren L., Hernández J. et al. 2018e. *Gaia Data Release 2. The celestial reference frame (Gaia-CRF2)*. **A&A 616**: A14, doi:10.1051/0004-6361/201832916
- Gaia Collaboration, Spoto F., Tanga P., Mignard F., Berthier J. et al. 2018f. *Gaia Data Release 2. Observations of solar system objects*. **A&A 616**: A13, doi:10.1051/0004-6361/201832900
- Gaia Collaboration, Clementini G., Eyer L., Ripepi V., Marconi M. et al. 2017a. *Gaia Data Release 1. Testing parallaxes with local Cepheids and RR Lyrae stars*. **A&A 605**: A79, doi:10.1051/0004-6361/201629925
- Gaia Collaboration, van Leeuwen F., Vallenari A., Jordi C., Lindegren L. et al. 2017b. *Gaia Data Release 1. Open cluster astrometry: performance, limitations, and future prospects*. **A&A 601**: A19, doi:10.1051/0004-6361/201730552
- Gaia Collaboration, Brown A. G. A., Vallenari A., Prusti T., de Bruijne J. H. J. et al. 2016a. *Gaia Data Release 1. Summary of the astrometric, photometric, and survey properties*. **A&A 595**: A2, doi:10.1051/0004-6361/201629512
- Gaia Collaboration, Prusti T., de Bruijne J. H. J., Brown A. G. A., Vallenari A. et al. 2016b. *The Gaia mission*. **A&A 595**: A1, doi:10.1051/0004-6361/201629272

## ANTARES refereed publications

- Adrián-Martínez S., Albert A., André M., Anghinolfi M., Anton G. et al. 2014b. *A search for time dependent neutrino emission from microquasars with the ANTARES telescope*. **Journal of High Energy Astrophysics 3**: 9–17, doi:10.1016/j.jheap.2014.06.002
- Adrián-Martínez S., Albert A., Al Samarai I., André M., Anton G. et al. 2014a. *A search for neutrino emission from the Fermi bubbles with the ANTARES telescope*. **European Physical Journal C 74**: 2701, doi:10.1140/epjc/s10052-013-2701-6
- Adrián-Martínez S., Albert A., Samarai I. A., André M., Anghinolfi M. et al. 2013b. *Search for muon neutrinos from gamma-ray bursts with the ANTARES neutrino telescope using 2008 to 2011 data*. **A&A 559**: A9, doi:10.1051/0004-6361/201322169
- Adrián-Martínez S., Albert A., Al Samarai I., André M., Anghinolfi M. et al. 2013a. *Measurement of the atmospheric  $\nu_{\mu}$  energy spectrum from 100 GeV to 200 TeV with the ANTARES telescope*. **European Physical Journal C 73**: 2606, doi:10.1140/epjc/s10052-013-2606-4
- Adrián-Martínez S., Samarai I. A., Albert A., André M., Anghinolfi M. et al. 2013c. *Search for a Correlation between ANTARES Neutrinos and Pierre Auger Observatory UHECRs Arrival Directions*. **ApJ 774(1)**: 19, doi:10.1088/0004-637X/774/1/19
- Tamburini C., Canals M., Durrieu de Madron X., Houpert L., Lefèvre D. et al. 2013. *Deep-Sea Bioluminescence Blooms after Dense Water Formation at the Ocean Surface*. **PLoS ONE 8(7)**: e67523, doi:10.1371/journal.pone.0067523
- Adrián-Martínez S., Samarai I. A., Albert A., André M., Anghinolfi M. et al. 2013d. *A first search for coincident gravitational waves and high energy neutrinos using LIGO, Virgo and ANTARES data from 2007*. **J. Cosmology Astropart. Phys. 2013(6)**: 008, doi:10.1088/1475-7516/2013/06/008
- Adrián-Martínez S., Samarai I. A., Albert A., André M., Anghinolfi M. et al. 2012f. *Search for Cosmic Neutrino Point Sources with Four Years of Data from the ANTARES Telescope*. **ApJ 760(1)**: 53, doi:10.1088/0004-637X/760/1/53

- Adrián-Martínez S., Ageron M., Aguilar J. A., Samarai I. A., Albert A. et al. 2012a. *The positioning system of the ANTARES Neutrino Telescope*. **Journal of Instrumentation** **7(8)**: T08002, doi:10.1088/1748-0221/7/08/T08002
- Adrián-Martínez S., Al Samarai I., Albert A., André M., Anghinolfi M. et al. 2012d. *Measurement of atmospheric neutrino oscillations with the ANTARES neutrino telescope*. **Physics Letters B** **714(2-5)**: 224–230, doi:10.1016/j.physletb.2012.07.002
- Adrián-Martínez S., Al Samarai I., Albert A., André M., Anghinolfi M. et al. 2012e. *Search for neutrino emission from gamma-ray flaring blazars with the ANTARES telescope*. **Astroparticle Physics** **36(1)**: 204–210, doi:10.1016/j.astropartphys.2012.06.001
- Adrián-Martínez S., Aguilar J. A., Al Samarai I., Albert A., André M. et al. 2012b. *Search for relativistic magnetic monopoles with the ANTARES neutrino telescope*. **Astroparticle Physics** **35(10)**: 634–640, doi:10.1016/j.astropartphys.2012.02.007
- Aguilar J. A., Al Samarai I., Albert A., André M., Anghinolfi M. et al. 2012. *A method for detection of muon induced electromagnetic showers with the ANTARES detector*. **Nuclear Instruments and Methods in Physics Research A** **675**: 56–62, doi:10.1016/j.nima.2012.01.060
- Adrián-Martínez S., Al Samarai I., Albert A., André M., Anghinolfi M. et al. 2012c. *Measurement of the group velocity of light in sea water at the ANTARES site*. **Astroparticle Physics** **35(9)**: 552–557, doi:10.1016/j.astropartphys.2011.12.003
- Ageron M., Aguilar J. A., Al Samarai I., Albert A., André M. et al. 2012. *The ANTARES telescope neutrino alert system*. **Astroparticle Physics** **35(8)**: 530–536, doi:10.1016/j.astropartphys.2011.11.011
- Adrián-Martínez S., Aguilar J. A., Samarai I. A., Albert A., André M. et al. 2011. *First Search for Point Sources of High-energy Cosmic Neutrinos with the ANTARES Neutrino Telescope*. **ApJ** **743(1)**: L14, doi:10.1088/2041-8205/743/1/L14
- Ageron M., Aguilar J. A., Al Samarai I., Albert A., Ameli F. et al. 2011. *ANTARES: The first undersea neutrino telescope*. **Nuclear Instruments and Methods in Physics Research A** **656(1)**: 11–38, doi:10.1016/j.nima.2011.06.103
- van Haren H., Taupier-Letage I., Aguilar J. A., Albert A., Anghinolfi M. et al. 2011. *Acoustic and optical variations during rapid downward motion episodes in the deep north-western Mediterranean Sea*. **Deep Sea Research Part I: Oceanographic Research** **58(8)**: 875–884, doi:10.1016/j.dsr.2011.06.006
- Aguilar J. A., Al Samarai I., Albert A., André M., Anghinolfi M. et al. 2011a. *A fast algorithm for muon track reconstruction and its application to the ANTARES neutrino telescope*. **Astroparticle Physics** **34(9)**: 652–662, doi:10.1016/j.astropartphys.2011.01.003
- ANTARES Collaboration, Aguilar J. A., Al Samarai I., Albert A., André M. et al. 2011. *Time calibration of the ANTARES neutrino telescope*. **Astroparticle Physics** **34(7)**: 539–549, doi:10.1016/j.astropartphys.2010.12.004
- Aguilar J. A., Al Samarai I., Albert A., Anghinolfi M., Anton G. et al. 2011b. *AMADEUS—The acoustic neutrino detection test system of the ANTARES deep-sea neutrino telescope*. **Nuclear Instruments and Methods in Physics Research A** **626**: 128–143, doi:10.1016/j.nima.2010.09.053
- Aguilar J. A., Samarai I. A., Albert A., André M., Anghinolfi M. et al. 2011c. *Search for a diffuse flux of high-energy  $\nu_{\text{SUB}}$  with the ANTARES neutrino telescope*. **Physics Letters B** **696(1-2)**: 16–22, doi:10.1016/j.physletb.2010.11.070

- Aguilar J. A., Al Samarai I., Albert A., Anghinolfi M., Anton G. et al. 2010a. *Performance of the front-end electronics of the ANTARES neutrino telescope*. **Nuclear Instruments and Methods in Physics Research A** **622(1)**: 59–73, doi:10.1016/j.nima.2010.06.225
- ANTARES Collaboration, Aguilar J. A., Albert A., Anton G., Anvar S. et al. 2010. *Zenith distribution and flux of atmospheric muons measured with the 5-line ANTARES detector*. **Astroparticle Physics** **34(3)**: 179–184, doi:10.1016/j.astropartphys.2010.07.001
- Aguilar J. A., Al Samarai I., Albert A., Anghinolfi M., Anton G. et al. 2010b. *Measurement of the atmospheric muon flux with a 4 GeV threshold in the ANTARES neutrino telescope*. **Astroparticle Physics** **33(2)**: 86–90, doi:10.1016/j.astropartphys.2009.12.002
- Aguilar J. A., Albert A., Anghinolfi M., Anton G., Anvar S. et al. 2010c. *Rapid subduction in the deep North Western Mediterranean*. **Ocean Science Discussions** **7(2)**: 739–756

## — Gaia Internal Publications

- Astraatmadja T. L.**, 2015a, *Astrometry and photometry in Ulysses*. Technical Report GAIA-C8-TN-MPIA-TLA-003, Max Planck Institute for Astronomy, Heidelberg
- Astraatmadja T. L.**, 2015c, *Ulysses user's manual*. Technical Report GAIA-C8-TN-MPIA-TLA-002, Max Planck Institute for Astronomy, Heidelberg
- Astraatmadja T. L.**, 2015b, *Ulysses: Principles and practice*. Technical Report GAIA-C8-TN-MPIA-TLA-001, Max Planck Institute for Astronomy, Heidelberg

## — Dissertation

- Astraatmadja T. L.** 2013. *Starlight beneath the waves: In search of TeV photon emission from Gamma-Ray Bursts with the ANTARES Neutrino Telescope*. PhD thesis, Universiteit Leiden, doi:10.5281/zenodo.48199

## — ANTARES Internal Publications

- Astraatmadja T. L.**, 2012a, *On the detection of TeV  $\gamma$ -rays from GRB with  $km^3$  neutrino telescopes: ANTARES's responses to downgoing muons*. Technical Report ANTARES-PHYS-2012-005, Nikhef, Amsterdam
- Astraatmadja T. L.**, 2012b, *On the detection of TeV  $\gamma$ -rays from GRB with  $km^3$  neutrino telescopes: Simulation and optimization of three selected GRBs*. Technical Report ANTARES-PHYS-2012-006, Nikhef, Amsterdam

## — Conference proceedings

- Astraatmadja T. L.** 2012a. *Detecting TeV  $\gamma$ -rays from GRBs with  $km^3$  neutrino telescopes*. In *Death of Massive Stars: Supernovae and Gamma-Ray Bursts*, volume 279 of *IAU Symposium*, pp. 321–322. doi:10.1017/S1743921312013154
- Astraatmadja T. L.** 2012b. *Neutrinos from GRBs and their detection with ANTARES*. In *Death of Massive Stars: Supernovae and Gamma-Ray Bursts*, volume 279 of *IAU Symposium*, pp. 323–324. doi:10.1017/S1743921312013166