

Curriculum Vitae

Name: Ibnu Nurul Huda

Affiliation:

- Nanjing University, China
- National Research and Innovation Agency, Indonesia

Email: ibnu.nurul.huda@nju.edu.cn



CURRENT RESEARCH ACTIVITY

- Geodetic VLBI Data Analysis
- Geodynamics
- Earth Rotation
- Celestial Mechanics

EDUCATION

- 2016 - 2019 Doctor (Astronomy and Astrophysics), **Paris Observatory, France**
2014 - 2016 Master of Science (Applied Physics), **Pierre and Marie Curie University, France**
2014 - 2016 Master of Science (Astronomy), **Institut Teknologi Bandung (ITB), Indonesia**
2010 - 2014 Bachelor of Science (Astronomy), **Institut Teknologi Bandung, Indonesia**

WORKING EXPERIENCE

- 2024 - Now Postdoctoral at **School of Astronomy and Space Science, Nanjing University, China**
2022 - 2024 Researcher at **Research Center for Computing, BRIN, Indonesia**
2020 - 2022 Postdoctoral at **Department of Astronomy, Institut Teknologi Bandung, Indonesia**
2013 - 2015 Assistant of Researcher at **Department of Astronomy, Institut Teknologi Bandung, Indonesia**

SCIENTIFIC PUBLICATION

International Scientific Journal:

1. Peberlin Parulian Sitompul, Pakhrur Razi, Timbul Manik, Mario Batubara, Musthofa Lathif, Farahhati Mumtahana, Rizal Suryana, Ibnu Nurul Huda, Taufiq Hidayat, Yana Taryana, and Farhan Sobirin (2023), A Study for a Radio Telescope in Indonesia: Parabolic Design, Simulation of a Horn Antenna, and Radio Frequency Survey in Frequency of 0.045–18 GHz, *Aerospace* 11(1), 52
2. I. Nurul Huda, B. Dermawan, M. B. Saputra, R. Sadikin, T. Hidayat (2023), Studying the Equilibrium Points of the Modified Circular Restricted Three-Body Problem: the Case of Sun-Haumea System, *Research in Astronomy and Astrophysics*, Volume 23, Number 11, <https://doi.org/10.1088/1674-4527/acf978>
3. F. Mumtahana, I. Nurul Huda, M. Husna, T. Manik, P. Sitompul, M. Batubara, M. Lathief, and T. Hidayat (2023), The Potential use of The 20-Meter Radio Telescope Planned at The Timau National Observatory, *Romanian Astronomical Journal* 33, 57-65
4. S. Y. CH Bissa, I. Nurul Huda, M. B. Saputra, S. Rizal, R. W. Wibowo, F. Mumtahana, P. Sitompul, M. Batubara, M. Lathief, T. Manik, and T. Hidayat (2023), Development of Artificial Earth Satellite Simulation Software For Future Radio Telescopes in Indonesia, *Romanian*

5. Ibnu Nurul Huda, S. Lambert, and J. Souchay (2023), Tidal triggering of seismicity in the region of Palu, Central Sulawesi, Indonesia, *Geodesy and Geodynamics*, Volume 14, Issue 4, Pages 377-384, <https://doi.org/10.1016/j.geog.2022.12.002>
6. Jun Yao, Jia-Cheng Liu, Niu Liu, Z. Malkin, Zi Zhu, Ibnu Nurul Huda, and S. Lambert (2022), Effect of Galactic aberration on Earth orientation parameters: From the ICRF2 to the ICRF3, *Astronomy and Astrophysics* 665, A121, <https://doi.org/10.1051/0004-6361/202243852>
7. Ibnu Nurul Huda, Taufiq Hidayat, Budi Dermawan, et al (2021), Measuring the impact of Indonesian antennas on global geodetic VLBI network, *Experimental Astronomy*, 52 (1), 141-155, <https://doi.org/10.1007/s10686-021-09773-1>
8. Ibnu Nurul Huda and Jean Souchay (2021), Study of the relation between lunisolar periodicities and earthquake events, *Romanian Astronomical Journal*, Volume 31, Issue 1, 57-71
9. Ibnu Nurul Huda, Christian Bizouard, Sébastien Lambert, and Damien Allain (2021), Polar motion resonance in the prograde diurnal band, *Geophysical Journal International*, <https://doi.org/10.1093/gji/ggab113>
10. Yann Ziegler, Sébastien Lambert, Ibnu Nurul Huda, Christian Bizouard, Séverine Rosat (2020), Contribution of a joint Bayesian inversion of VLBI and gravimetric data to the estimation of the Free Inner Core and Outer Core Nutation resonance parameters, *Geophysical Journal International*, Volume 222, Issue 2, 845–860.
11. Ibnu Nurul Huda, Yann Ziegler, Christian Bizouard, and Sébastien Lambert (2020), Nutation terms adjustment and implication for the Earth rotation resonance parameters, *Geophysical Journal International*, Volume 220, Issue 2, Pages 759–767, <https://doi.org/10.1093/gji/ggz468>
12. Christian Bizouard, Ibnu Nurul Huda, Yann Ziegler, Sébastien Lambert (2020), Frequency dependence of the polar motion resonance, *Geophysical Journal International*, Volume 220, Issue 2, Pages 753–758, <https://doi.org/10.1093/gji/ggz463>

International Conference Proceeding:

11. J. S. Muthmaina, I. Nurul Huda, D. S. Palupi (2024), Implementation of Allan Standard Deviation Technique in Stability Analysis of 4C31.61 Quasar Position, *Journal of Physics Conference Series* (In press)
12. A. M. Nugraha, I. Nurul Huda, A. Abdurrazaq (2024), Stability Analysis of Modified Circular Restricted Three Body Problem by Lyapunov Exponent Indicators, *Journal of Physics Conference Series* (In press)
13. I. Nurul Huda, N. S. E. Putri, T. Hidayat, F. Shu, and J. Li (2024), Study of Asia-Pacific Plate Tectonic Motion by Using VLBI Observation, *Journal of Physics Conference Series* (In press)
14. H. R. S. Haz, I. Nurul Huda, A. Abdurrazaq (2024), Model of Close Orbit Dynamics Around Asteroid (338) Budrosa, *Journal of Physics Conference Series* (In press)
15. A. Prianto, R. W. Wibowo, G. P. Putri, Ibnu Nurul Huda, and H. L. Malasan (2023), Improving Spatial Resolution of Sunspot HMI Images Using Conditional Generative Adversarial Networks, *AIP Conference Proceedings* 2941 (1)
16. Ibnu Nurul Huda, M. B. Saputra, B. Dermawan, et al. (2023), Dynamical Evolution of New Trans-Neptunian Objects, *AIP Conference Proceedings* 2941 (1)
17. S. Ramadhan, T. Hidayat, Ibnu Nurul Huda, et al. (2022), Profil Cuaca Situs Stasiun Bumi Jatiluhur untuk Persiapan Teleskop Radio VLBI Indonesia, *Prosiding Seminar Panorama Antariksa*, pp 96-99

18. T. Hidayat, Ibnu Nurul Huda, S. Ramadhan, et al. (2022), Program Konversi Antena Telekomunikasi Indosat Menjadi Teleskop Radio VLBI, Prosiding Seminar Panorama Antariksa, pp 84-87
19. Ibnu Nurul Huda, T. Hidayat, B. Dermawan et al. (2022), Pengaruh Teleskop Radio Indonesia Masa Depan pada Jaringan VLBI Geodesi, Prosiding Seminar Nasional Geomatika VI, 1, pp 233 – 238
20. C Bizouard, I Nurul Huda, Y Ziegler, S Lambert (2019), Polar motion resonance in the retrograde diurnal band, JOURNÉES 2019 Astrometry, Earth Rotation, and Reference Systems in the GAIA era (<https://syrtel.obspm.fr/astro/journees2019/journees2019.pdf>)
21. Ibnu Nurul Huda, Christian Bizouard, Sébastien Lambert, Yann Ziegler (2019), Estimation of Earth rotation resonance parameters through VLBI analysis, JOURNÉES 2019 Astrometry, Earth Rotation, and Reference Systems in the GAIA era (<https://syrtel.obspm.fr/astro/journees2019/journees2019.pdf>)
22. S. Lambert, I. Nurul-Huda, Y. Ziegler, J.-Y. Richard, N. Liu, C. Gattano, S. Rosat, C. Bizouard (2018), Measurement of Earth's Nutation by VLBI: Direct Estimates from VLBI Delays and a Discussion on the Error, IVS 2018 General Meeting Proceedings (<https://ivscc.gsfc.nasa.gov/publications/gm2018/>)
23. I. Nurul-Huda, S. Lambert, C. Bizouard (2017), On The Harmonic Decomposition Of Celestial Pole Offsets: Direct Versus Indirect Approach, JOURNÉES 2017 Furthering Our Knowledge of Earth Rotation (<https://web.ua.es/journees2017/proceedings/PROCEEDINGS-JOURNEES.pdf>)
24. Ibnu Nurul Huda and Budi Dermawan (2016), The locations of triangular equilibrium points in elliptic restricted three-body problem under the oblateness and radiation Effects, Journal of Physics: Conference Series, 771, 012052, doi:10.1088/1742-6596/771/1/012052
25. Ibnu Nurul Huda, Budi Dermawan, R. W. Wibowo, Taufiq Hidayat, J. A. Utama, D. Madley, and I. Tampubolon (2015), Locations of out-of-plane equilibrium points in the elliptic restricted three-body problem under radiation and oblateness effects, Publications of the Korean Astronomical Society, 30, pp 295-296;
26. Ibnu Nurul Huda, Budi Dermawan, Taufiq Hidayat, J. A. Utama, D. Madley, R. W. Wibowo and I. Tampubolon (2015), The motion near L4 equilibrium point under non-point mass primaries, AIP Conf. Proc. 1677, 050015; <http://dx.doi.org/10.1063/1.4930676>
27. Budi Dermawan, Ibnu Nurul Huda, T. Hidayat, D. Mandey, J. A. Utama, R. W. Wibowo and I. Tampubolon (2015), Motions of Kepler circumbinary planets in restricted three-body problem under radiating primaries, AIP Conf. Proc. 1677, 050004; <http://dx.doi.org/10.1063/1.4930665>
28. B. Dermawan, Ibnu Nurul Huda, R. W. Wibowo, T. Hidayat, J. A. Utama, D. Mandey, and I. Tampubolon (2015), On the Triangular Equilibrium Points in the Elliptic Restricted Three-Body Problem Under Radiation and Oblateness Effects, Publications of The Korean Astronomical Society, 30(2), 293-294
29. B. Dermawan, T. Hidayat, J. A. Utama, D. Mandey, R. W. Wibowo, Ibnu Nurul Huda, and I. Tampubolon (2015), Estimation of unknown physical properties of near-Earth asteroids for dynamical study, AIP Conference Proceedings (Vol. 1677, No. 1, p. 050007). AIP Publishing LLC
30. R. W. Wibowo, B. Dermawan, T. Hidayat, D. Mandey, Ibnu Nurul Huda, I. Tampubolon, J. A. Utama (2014), Numerical Study of Motion of Sun-Grazing Comet C/2011 W3 (Lovejoy) Affected by Outgassing, General Relativity, and Oblateness Correction Forces, Proc. of 2014 International Conference on Physics, Atlantis Press, pp. 33-36
31. B. Dermawan, Ibnu Nurul Huda, T. Hidayat, J. A. Utama, D. Mandey, R. W. Wibowo, and I.

Tampubolon (2014), Stability of Triangular Equilibrium Points of Exoplanetary System HD 4732c by Including Radiation Effect, Proc. of 2014 International Conference on Physics, Atlantis Press, pp. 29-32

Intellectual Property Rights:

32. Artificial Earth Simulation Software (2022)

AWARD

2020 Prix d'appréciation, Journées Jeune Diplômés, Institut Français Indonesia

INVITING SPEAKER

2023 Seminar Departemen Fisika, Universitas Indonesia, Title: "Teleskop Radio VLBI Untuk Riset Multidisiplin", 1 November 2023.

2023 Kuliah Dosen Pakar, Universitas Pertahanan Republik Indonesia, Title: "Komputasional Astronomi: Pemodelan Dinamika Benda Kecil Tata Surya", 15 August 2023

2023 Kolokium Astronomi, Observatorium Astronomi ITERA Lampung, Title: "Riset Multidisiplin Menggunakan Teleskop Radio VLBI (Very-Long-Baseline Interferometry)", 24 May 2023

2020 Seminar Program Studi Astronomi, Institut Teknologi Bandung, Title: "Importance of radio telescope in Indonesia for global geodetic VLBI network", 16 September 2020

CONTRIBUTED ORAL SPEAKER

2023 14th East Asian VLBI Workshop

2023 Bosscha Observatory Symposium

2022 The 9th International Seminar on Aerospace Science and Technology

2022 The second Malaysian VLBI workshop

2021 2nd International Symposium on Space Science

2019 European Geosciences Union Meeting

TEACHING EXPERIENCE

2023 Mentor of Indonesian Team for the International Olympiad of Astronomy and Astrophysics (Kemendikbudristek)

2020 (Assistant) Physics of Solar System (Institut Teknologi Bandung; Master)

2014 (Assistant) Solar System (Institut Teknologi Bandung; Bachelor)

2014 (Assistant) Computational Astronomy (Institut Teknologi Bandung; Bachelor)

LANGUAGES

Indonesian (native), English (professional), French (intermediate), Chinese (basic)