Curriculum Vitae

Himadri Sekhar Das, Ph.D.

Professor, Department of Physics
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Education

- **Ph.D.**, Assam University, Silchar — 2000 - 2005
  Thesis title: *Photopolarimetric studies of comets and other objects* (Link to Thesis).
- **M.Sc. Physics**, Assam University, Silchar — 1997 - 1999

Employment History

- **Faculty** — 2007 - Present
  (Assam University, Silchar)
- **Postdoctoral Fellow** — Sep 2013 - Dec 2013
  (Department of Astronomy, University of Maryland, College Park, USA)

Administrative Responsibilities

- **Head of Physics Department** — March 21, 2024 - Present
  (Department of Physics, Assam University, Silchar)
  – Provided strategic leadership for the department, overseeing faculty, curriculum advancement, and resource allocation.
  – Enhanced student mentorship and academic programs to strengthen educational outcomes and research engagement.
- **Proctor** — January 03, 2022 - April 03, 2024
  (Assam University, Silchar)
  – Maintained discipline among students and enforced university rules and regulations.
  – Investigated cases of student misconduct and imposed appropriate disciplinary actions.
  – Ensured campus security by overseeing security personnel and responding to security emergencies.
- **Dean of Student Welfare (DSW)** — April 06, 2021 - January 02, 2022
  (Assam University, Silchar)
  – Oversaw student welfare initiatives and support services.
  – Collaborated with faculty and administration to enhance student experience.
  – Oversaw the administration of university hostels, ensuring a conducive living environment for students.

Research Interests

- **Cosmic Dust Scattering**: Exploring the scattering properties of cometary, asteroidal, and interstellar dust to understand their physical and chemical composition.
- **Polarimetric Studies of Small Bodies**: Analyzing the polarization of light scattered by comets and asteroids to probe their surface properties and internal structure.
- **Star Formation Processes**: Investigating the role of magnetic fields and turbulence in the formation of stars, with a focus on the evolution of protostellar cores and disks.

Supervision

- **M.Phil. Scholars:**

5. **Ms. Saonli Datta Majumder** (2009): Aggregate dust model to describe the polarization properties of comet.
4. **Mr. Abinash Suklabaidya** (2008): *Modelling of the light scattering by cometary dust using fractal aggregates*.
3. **Ms. Tapasree Paul** (2008): *Study of light scattering by aggregate particles in comet Levy 1990XX*.
2. **Mr. Dipankar Paul** (2009): *To study the dust grain characteristics of comet by comparing the theoretical polarization values with the observed polarization values for comet* (Registered to Periyar University, Salem through distant mode).
1. **Mr. Sujit Ranjan Das** (2008): *Polarimetric studies of comet Halley using T-matrix theory* (Registered to Madurai Kamaraj University, Madurai through distant mode).

- **Ph.D. Scholars:**

12. **Gulafsha Begom Choudhury** (awarded on 02-05-2024) (0120180122 dtd. 25.01.2018): *Study of Molecular Clouds through Photometry and Polarimetry.*
11. **Ayesha Maryam Mazarbhuiya** (awarded on 23-04-2024) (PhD/2837/15 dtd. 12.09.2015): *Polarimetry as a Tool to Study the Dust Properties of Comets.*
10. **Prithish Halder** (awarded on 01-05-2019) (PhD/2380/13 dtd. 11.09.2013): *Study of Physical Properties of Cosmic Dust from Light Scattering.*
9. **Jaydeep Paul** (awarded on 10-10-2018) (PhD/2276/13 dtd. 03.04.2013): *A Theoretical Study of Double Layers and Sheaths in Various Plasma Configurations.*
8. **Ajoy Barman** (awarded on 13-08-2018) (PhD/2031/12 dtd. 12.09.2012): *Photometric and Polarimetric Studies of Some Selected Dark Clouds.*
7. **Arup Das** (awarded on 07-08-2018) (PhD/2384/13 dtd. 11.09.2013): *Photopolarimetric Study of some Selected Dark Clouds.*
6. **Parizath Deb Roy** (awarded on 26-07-2017) (PhD/1787/11 dtd. 22.09.2011): *A comprehensive dust model to describe the polarization properties of comet.*
5. **Arindwam Chakraborty** (awarded on 26-07-2017) (PhD/1788/11 dtd. 22.09.2011): *Study of optical properties of cosmic dust by numerical simulations and observations.*
4. **Abinash Suklabaidya** (awarded on 07-08-2013) (PhD/1114/10 dtd. 07.04.2010): *Modeling of light scattering properties of cometary dust.*
3. **Chinmoy Bhattacharjee** (awarded on 16-04-2013) (PhD/ 719/2009/ dtd. 16.04.2013). *Study of Light Scattering properties of cosmic dust (as a Co-supervisor).*

2. **Dipankar Paul** (awarded on 26-09-2012) (PhD/718/09/ Dtd. 11.02.09). *Study of Polarisation properties of comets and other objects (as a Co-supervisor).*
1. **Sujit Ranjan Das** (awarded on 16-11-2011) (PhD/650/08 dtd. 17.04.08). *Modelling of Optical characteristics of cometary dust by fractal aggregates (as a Co-supervisor).*

Skills

- **Languages**:
  Strong reading, writing and speaking competencies in English, Bengali, Hindi, and Assamese.
- **Experience in Computer:**
  – **Operating Systems:** WINDOWS, UNIX (LINUX).
  – **Programming languages:** Python, C++, FORTRAN.
  – **Image Processing Software:** IRAF, IRIS, APT, fv.
  – **Other Software Packages:** Latex, Gnuplot, Super Mongo, Mathematica, etc.

Awards, Fellowships, and Achievements

- **Rotary Award-2018:**
  Honored by the Rotary Club of Hailakandi for contributions to the field of Astronomy & Astrophysics on **July 01, 2018**.
- **Paragon Excellence Award-2015:**
  Honored by *Paragon*, an NGO in Badarpur (Assam), with the **Paragon Excellence Award-2015** on **January 30, 2016** for service in the fields of Education and Nation Building.
- **Inspired Teachers' In-Residence Programme at Rashtrapati Bhavan (2015):**
  Honored by the Hon'ble President of India, **Shri Pranab Mukherjee**, during the *Inspired Teachers' In-Residence Programme at Rashtrapati Bhavan* held from **6th June** to **12th June, 2015**. The title *Inspired Teacher* (alternatively referred to as President's Inspired Teacher) represents the highest civilian recognition for university-level teachers in India, awarded as part of an In-Residence Programme with the President of India at Rashtrapati Bhavan, New Delhi.
- **Indo-US Research Fellowship (2013):**
  Awarded the **Indo-US Research Fellowship** for 2013 to conduct advanced research in **Physical Sciences (Astrophysics)** for a duration of three months (September 15 – December 15, 2013) under **Prof. Ludmilla Kolokolova** at the **University of Maryland, USA**. This fellowship was supported by the Indo-US Science and Technology Forum (IUSSTF) in association with the Science and Engineering Research Council (SERC) of the Department of Science and Technology (DST), Govt. of India.
- **DAE Fellowship (2000 - 2004):**
  Worked as a Research Fellow (RF) in the Department of Physics, Assam University, Silchar, under the guidance of **Dr. Asoke Kr. Sen** from March 29, 2000, toward Ph.D. research in a project (BRNS/98/37/6) titled *Photopolarimetric Studies of Comets*, funded by the Department of Atomic Energy (Govt. of India) in collaboration with Bhabha Atomic Research Centre (BARC), Mumbai.

- **Saktipada Das Memorial Award (1992):**
  Recipient of the *Saktipada Das Memorial Award* for the year 1992 for securing the highest position in the H.S.L.C. Examination 1992 among students from Nilmani H.S. School, Karimganj, Assam.
- **Sushama Paul Memorial Award (1992):**
  Recipient of the *Sushama Paul Memorial Award* for the year 1992 for securing the highest position in the H.S.L.C. Examination 1992 among students from Nilmani H.S. School, Karimganj, Assam.

Visiting Positions and Memberships

- **Visiting Scientist**: Visited University of Maryland, Maryland, USA under Indo-US Science and Technology Forum (IUSSTF) Fellowship, during September-December 2013, March-April 2017 to carry out collaborative research work.
- **Visiting Associate**: Inter University for Astronomy and Astrophysics (IUCAA), Pune, India since August 01, 2007.
- **Visiting Observer**: Aryabhatta Research Institute of Observational Sciences (ARIES), Manora Peak, Nainital, India.
- **Member**: International Astronomical Union (IAU) (Membership No. 17910).
- **Life Member**: Astronomical Society of India (ASI) (Life Membership No. L 2158).
- **Life Member**: Physics Academy of North East (PANE) (Life Membership No. LM-0255).

Research Project

- **Principal Investigator (PI):**
  Department of Science & Technology (DST) (SR/FTP/PS-092/2011), Govt. of India, under the FAST Track scheme. Project funded by DST at Assam University, commencing from July 2012 and completed in 2016. The project title was *'Study of Light Scattering Properties of Cosmic Dust Using Cluster Computation'*.

Astronomy Outreach and Observation Programs

- Organized and conducted numerous night sky observation programs using telescopes at Assam University, providing students with hands-on experience in astronomical observations and fostering interest in the field of Astronomy.
- Engaged in extensive outreach activities, visiting various schools, colleges, and universities to promote Astronomy and raise awareness about space sciences.
- Conducted interactive sessions, practical demonstrations, and presentations tailored to inspire interest in Astronomy among young students and the general public.
- Aimed to bridge the gap between theoretical knowledge and real-world astronomical phenomena, making complex topics accessible and exciting to a broader audience.

Research Publications

In Journals:

44. B. Barman, **H. S. Das**, & P. Byakti, **2025**. *Turbulence and Magnetic Field Alignment in Small Molecular Clouds: the Role of Cloud Size, Mass and Density*. Astrophysical Journal (ApJ), **980**, 252 (Link to Paper).

43. S. Nath Mazumdar, **H. S. Das**, & S. Wolf, **2025**. *Investigating the correlation between the magnetic field orientation and molecular outflow direction in some molecular clouds*. Monthly Notices of the Royal Astronomical Society (MNRAS), **536**, 2381 (Link to Paper).

42. R. S. Paul, P. Halder, **H. S. Das**, A. M. Mazarbhuiya, & B. J. Medhi, **2024**. *Investigating the extinction and magnetic field geometry in the Bok globule CB26*. Monthly Notices of the Royal Astronomical Society (MNRAS), **535**, 3353 (Link to Paper).

41. B. Goswami, **H. S. Das**, N.N. Devi, & P. Halder, **2024**. Influence of porosity on the Umov effect in silicate and organic refractory aggregates. Journal of Quantitative Spectroscopy and Radiative Transfer (JQSRT), **323**, 109019 (Link to Paper).

40. S. Biswas, B. J. Medhi, S. Deb, S. Deb, **H. S. Das**, & G I Perren, **2024**. *A statistical approach to polarimetric and photometric investigation of the intermediate-age open cluster NGC 1912*. Monthly Notices of the Royal Astronomical Society (MNRAS), **532**, 1241 (Link to Paper).

39. B. Prasad, & **H. S. Das**, **2024**. *Unveiling the properties of asteroids: linking photopolarimetry to spectral classification*. Monthly Notices of the Royal Astronomical Society (MNRAS), **532**, 22 (Link to Paper).

38. B. Barman, & **H. S. Das**, **2024**. *Magnetic field alignment in low-mass molecular clouds: The role of turbulence and density of the clouds*. Monthly Notices of the Royal Astronomical Society (MNRAS), **529**, 1715 (Link to Paper).

37. G. B. Choudhury, B. Goswami, **H. S. Das**, B. J. Medhi, J. C. Pandey, **2024**. *Probing the magnetic field and dust grain properties of two dark clouds L1495 and L1498 through photopolarimetry*. Monthly Notices of the Royal Astronomical Society (MNRAS), **528**, 7156 (Link to Paper).

36. B. Goswami, and **H. S. Das**, **2023**. *A study of the correlation between polarization maximum to minimum ratio and scattering parameters in a spheroid dust model*. Journal of Quantitative Spectroscopy and Radiative Transfer (JQSRT), **309**, 108689 (Link to Paper).

35. A. M. Mazarbhuiya, **H. S. Das**, B. J. Medhi, P. Halder and P. Deb Roy, **2022**. *Study of dust coma of comets 32P/Comas Sola and C/2015 V2 (Johnson) by imaging polarimetry*. Astrophys and Space Science, **367**, 98 (Link to Paper).

34. G. B. Choudhury, **H. S. Das**, B. J. Medhi, J. C. Pandey, S. Wolf, T. K. Dhar, and A. M. Mazarbhuiya, **2022**. *The Relative Orientation between Local Magnetic Field and Galactic Plane in Low Latitude Dark Clouds*. Research in Astronomy and Astrophysics (RAA), **22**, 075003 (Link to Paper).

33. A. M. Mazarbhuiya, **H. S. Das**, and P. Halder, **2021**. *The Umov effect in cosmic dust analogue fluffy aggregates*. Monthly Notices of the Royal Astronomical Society (MNRAS), **502**, 2536 (Link to Paper).

32. G. B. Choudhury, A. Barman, **H. S. Das**, and B. J. Medhi, **2019**. *Bok globule CB17: Polarization, extinction and distance*. Monthly Notices of the Royal Astronomical Society (MNRAS), **487**, 475 (Link to Paper).

31. O. Ivanova, I. Luk'yanyk, L. Kolokolova, **H. S. Das**, M. Husárik, V. Afanasiev, J. Svoren, V. Rosenbush, N. Kiselev, and V. Krushinsky, **2019**. *Photometry, spectroscopy, and polarimetry of distant comet C/2014 A4 (SONEAR)*. Astronomy & Astrophysics (A&A), **626**, A26 (Link to Paper).

30. P. Halder, P. Deb Roy and **H. S. Das**, **2018**. *Dependence of light scattering properties on porosity, size and composition of dust aggregates*. Icarus, **312**, 45 (Link to Paper).

29. J. Paul, A. Nag, and **H. S. Das**, **2018**. *Generation of sheath in magnetized plasma under the impact of slow rotation*. Chinese Journal of Physics (CJP), **56**, 1121 (Link to Paper).

28. J. Paul, A. Nag, K. Devi and **H. S. Das**, **2018**. *Characteristic features of double layers in rotating magnetised plasma contaminated with dust grains with varying charges*. Journal of the Korean Physical Society (JKPS), **72**, 662 (Link to Paper).

27. P. Deb Roy, P. Halder and **H. S. Das**, **2017**. *Study of light scattering properties of dust aggregates with a wide variation of porosity*. Astrophysics and Space Science (ASS), **362**, 209 (Link to Paper).

26. T. K. Dhar and **H. S. Das**, **2017**. *Correlation among extinction efficiency and other parameters in an aggregate dust model.* Research in Astronomy & Astrophysics (RAA), **17**, 118 (Link to Paper).

25. P. Halder and **H. S. Das**, **2017**. *JaSTA-2: Second version of the Java Superposition T-matrix Application.* Computer Physics Communications (CPC), **221**, 421 (Link to Paper).

24. A. M. Mazarbhuiya and **H. S. Das**, **2017**. *The study of correlation among different scattering parameters in an aggregate dust model.* Astrophysics and Space Science (ASS), **362**, 161 (Link to Paper).

23. A. Das, **H. S. Das**, Biman J. Medhi and S. Wolf, **2016**. *Magnetic field geometry of the large globule CB 34*. Astrophysics and Space Science (ASS), **361**, 381 (Link to Paper).

22. A. Chakraborty and **H. S. Das**, **2016**. *Study of magnetic field geometry and extinction in Bok globule CB130*. Astrophysics and Space Science (ASS), **361**, 321 (Link to Paper).

21. L. Kolokolova, **H. S. Das**, O. Dubovik, T. Lapyonok, and P. Yang, **2015**. *Polarization of Cosmic Dust Simulated with the Rough Spheroid Model*. Planetary and Space Science (PSS), **116**, 30 (Link to Paper).

20. A. Barman and **H. S. Das**, **2015**. *Study of grain alignment efficiency and a distance estimate for small globule CB4*. Research in Astronomy & Astrophysics (RAA), **15**, 953 (Link to Paper).

19. A. Das, **H. S. Das** and A. S. Devi, **2015**. *Distance estimation of some selected small Bok globules*. Monthly Notices of the Royal Astronomical Society (MNRAS), **452**, 389 (Link to Paper).

18. P. Deb Roy, P. Halder, **H. S. Das** and B. J. Medhi, **2015**. *Imaging polarimetry of comets C/2013 V1 (Boattini) and 290P/Jager before and after perihelion*. Monthly Notices of the Royal Astronomical Society (MNRAS), **450**, 1770 (Link to Paper).

17. P. Deb Roy, **H. S. Das** and B. J. Medhi, **2015**. *Imaging Polarimetry of Comet C/2012 L2 (LINEAR)*. Icarus, **245**, 241 (Link to Paper).

16. P. Halder, A. Chakraborty, P. Deb Roy and **H. S. Das**, **2014**. *Java application for Superposition T-matrix code to study the optical properties of cosmic dust aggregates15*. Computer Physics Communications (CPC), **185**, 2369 (Link to Paper).

15. A. Chakraborty, **H. S. Das** and D. Paul, **2014**. *Study of background star polarization, and polarization efficiency of three selected Bok globules CB56, CB60 and CB69*. Monthly Notices of the Royal Astronomical Society (MNRAS), **442**, 479 (Link to Paper).

14. G. Bertrang, S. Wolf and **H. S. Das**, **2014**. *Large-scale magnetic fields in Bok globules*. Astronomy & Astrophysics (A&A), **565**, A94 (Link to Paper).

13. **H. S. Das**, B. J. Medhi, S. Wolf, G. Bertrang, P. Deb Roy and A. Chakraborty, **2013**. *Polarimetric studies of comet C/2009 P1 (Garradd)*. Monthly Notices of the Royal Astronomical Society (MNRAS), **436**, 3500 (Link to Paper).

12. D. Paul, **H. S. Das** and A. K. Sen, **2012.** *Imaging polarimetry of the Bok globule CB56*. Bulletin of the Astronomical Society of India (BASI), **40**, 113 (Link to Paper).

11. **H. S. Das**, D. Paul, A. Suklabaidya and A. K. Sen, **2011.** *Modelling the polarization properties of Comet 1P/Halley using a mixture of compact and aggregate particles*. Monthly Notices of the Royal Astronomical Society (MNRAS), **416**, 94 (Link to Paper).

10. C. Bhattacharjee, D. Deb, **H. S. Das**, A. K. Sen and R. Gupta, **2011**. *Modelling of laboratory data of bi-directional reflectance of regolith surface containing Alumina*. Publications of the Astronomical Society of Australia (PASA), **28**, 261 (Link to Paper).

9. D. Deb, A. K. Sen, **H. S. Das** and R. Gupta, **2011**. *The photometric study of light scattering from the surface of alumina powder and interpretations by Hapke formula*. Advances in Space Research, **48**, 1274 (Link to Paper).

8. **H. S. Das** & A. K. Sen, **2011.** *Model for cometary grains to explain optical polarization*. J. Quant. Spectrosc. Radiat. Transfer, **112**, 1833 (Link to Paper).

7. **H. S. Das**, A. Suklabaidya, S. Datta Majumder and A. K. Sen, **2010.** *Aggregate dust model to study the polarization properties of comet C/1996 B2 Hyakutake*. Research in Astronomy and Astrophysics (RAA), **10**, 355 (Link to Paper).

6. D. Paul, S. R. Das, **H. S. Das** and A. K. Sen, **2010.** *Polarisation properties of comet NEAT C/2001 Q4*. Indian Journal of Physics, **84 (6)**, 623 (Link to Paper).

5. **H. S. Das**, S. R. Das, and A. K. Sen, **2008.** *Aggregate dust model to describe polarization properties of comet Hale-Bopp*. Monthly Notices of the Royal Astronomical Society (MNRAS), **390**, 1195 (Link to Paper).

4. **H. S. Das**, S. R. Das, T. Paul, A. Suklabaidya, & A. K. Sen, **2008.** *Aggregate model of cometary dust: An application to comet Levy 1990XX*. Monthly Notices of the Royal Astronomical Society (MNRAS), **389**, 787 (Link to Paper).

3. **H. S. Das** & A. K. Sen, **2006.** *Polarimetric studies of comet Levy 1990XX*. Astronomy and Astrophysics (*A&A*), **459**, 271 (Link to Paper).

2. A. K. Sen, T. Mukai, R. Gupta & **H. S. Das**, **2005.** *An analysis of the distribution of background star polarization in dark clouds*. Monthly Notices of the Royal Astronomical Society (MNRAS), **361**, 177 (Link to Paper).

1. **H. S. Das**, A. K. Sen & C. L. Kaul, **2004.** *The polarimetric properties of cometary dust and a possible effect of dust aging by the Sun*. Astronomy and Astrophysics (*A&A*), **423**, 373 (Link to Paper).

In Special Issue :

1. **H. S. Das** and A. Barman, **2015**. *Extinction map of a small globule CB 224*. Asian Journal of Physics (AJP), Vol. 24, No 8, pp 1045-1048 (A special issue on Constituents of Interstellar Medium) (ISSN 0971-3093) (Link to Paper).

In Newsletter :

1. **H. S. Das**, **2018**. *Did Comet sow the seeds of Life on Earth?*. Physics Academy of North East (PANE) Newsletter (Aug 2018), Volume 4, Issue 3, pp 12–18.

In Book :

2. P. Deb Roy, A. Chakraborty, **H. S. Das**, B. J. Medhi, S. Wolf and G. Bertrang, 2013. Polarimetric observation of comet C/2009 P1 Garradd. In *Emerging Areas of Research and Development in Chemical and Physical Sciences in North East India* (R. Sen & D. G. Thakurata, Eds.), pp. 20 – 24. Publisher: Department of Physics and Chemistry, S. S. College, Hailakandi, Assam, India (ISBN: 978-81-908204-3-3).

1. C. Bhattacharjee, **H. S. Das** and A. K. Sen, 2012. Study of extinction at UV range using aggregate dust model. In *Contemporary Trends of Research in Physical Sciences* (T. K. Dey & Apratim Nag, Eds.), pp 55-59. Publisher: Department of Physics, Gurucharan College, Silchar-788004, Assam, India (ISBN: 978-81-923616-0-4).

In Conferences/Symposium etc Proceedings:

26. A. Barman, and **H. S. Das**, 2020. *Study of extinction in large globule CB3*. In *Proceedings of the Frontiers of Research in Physical Sciences* (ISBN: 978-81-931268-5-1), held during January 19–21, 2018, organized by Dept. of Physics, Karimganj College (Assam). Edited by Sujit Tewari and Rajat Subhra Paul, 2020, p 15–19.

25. A. Das, T. Dhar, and **H. S. Das**, 2020. *Extinction measurement of Bok globule CB27 using Near-Infrared Photometry*. In *Proceedings of the Frontiers of Research in Physical Sciences* (ISBN: 978-81-931268-5-1), held during January 19–21, 2018, organized by Dept. of Physics, Karimganj College (Assam). Edited by Sujit Tewari and Rajat Subhra Paul, 2020, p 11–14.

24. A. M. Mazarbhuiya, P. Halder, **H. S. Das** and B. J. Medhi, 2017. *Imaging polarimetry of comet C/2015 V2 (Johnson)*. In *Proceedings of the National Seminar on Recent Trends in Basic Science Researches (RTBSR-2017)* (ISBN: 978-81-933690-0-5), held during September 21 – 23, 2017, organized by the Dept. of Chemistry and Physics, S. S. college, Hailakandi (Assam). Edited by R. Sen, D. G. Thakurata and S. G. Roy, 2017, p 174.

23. J. Paul, A. Nag and **H. S. Das**, 2017. *A study of the distinctive behaviour of dust grains in a rotating plasma sheath*. In *Proceedings of the National Seminar on Recent Trends in Basic Science Researches (RTBSR-2017)* (ISBN: 978-81-933690-0-5), held during September 21 – 23, 2017, organized by the Dept. of Chemistry and Physics, S. S. college, Hailakandi (Assam). Edited by R. Sen, D. G. Thakurata and S. G. Roy, 2017, p 144.

22. P. Deb Roy and **H. S. Das**, 2017. *Imaging Polarimetry of the dust coma of some comets at small phase angles*. In *Proceedings of the National Seminar on Recent Trends in Basic Science Researches (RTBSR-2017)* (ISBN: 978-81-933690-0-5), held during September 21 – 23, 2017, organized by the Dept. of Chemistry and Physics, S. S. college, Hailakandi (Assam). Edited by R. Sen, D. G. Thakurata and S. G. Roy, 2017, p 64.

21. P. Halder, A. M. Mazarbhuiya, **H. S. Das** and B. J. Medhi, 2017. *Polarimetric study of the dark cloud CB26*. In *Proceedings of the National Seminar on Recent Trends in Basic Science Researches (RTBSR-2017)* (ISBN: 978-81-933690-0-5), held during September 21 – 23, 2017, organized by the Dept. of Chemistry and Physics, S. S. college, Hailakandi (Assam). Edited by R. Sen, D. G. Thakurata and S. G. Roy, 2017, p 43.

20. G. B. Choudhury, A. Barman, **H. S. Das**, B. I. Sharma and B. J. Medhi, 2017. *Study of the magnetic field geometry of a globule CB17 using both optical and sub-millimeter polarimetry*. In *Proceedings of the National Seminar on Recent Trends in Basic Science Researches (RTBSR-2017)* (ISBN: 978-81-933690-0-5), held during September 21 – 23, 2017, organized by the Dept. of Chemistry and Physics, S. S. college, Hailakandi (Assam). Edited by R. Sen, D. G. Thakurata and S. G. Roy, 2017, p 27.

19. A. Das and **H. S. Das**, 2017. *Extinction measurement of the globule CB34 using the Near-infrared Photometry*. In *Proceedings of the National Seminar on Recent Trends in Basic Science Researches (RTBSR-2017)* (ISBN: 978-81-933690-0-5), held during September 21 – 23, 2017, organized by the Dept. of Chemistry and Physics, S. S. college, Hailakandi (Assam). Edited by R. Sen, D. G. Thakurata and S. G. Roy, 2017, p 13.

18. A. Barman and **H. S. Das**, 2017. *Extinction map of a large globule CB 3*. In *Proceedings of the National Seminar on Recent Trends in Basic Science Researches (RTBSR-2017)* (ISBN: 978-81-933690-0-5), held during September 21 – 23, 2017, organized by the Dept. of Chemistry and Physics, S. S. college, Hailakandi (Assam). Edited by R. Sen, D. G. Thakurata and S. G. Roy, 2017, p 1.

17. **H. S. Das**, 2014. *Polarimetric studies of five small Bok Globules*. In *Proceedings of the National Seminar on Frontiers of Research in Physical Sciences* (ISBN: 978-81-931268-0-6), held during 21-23 September 2014, at Karimganj College, Karimganj, Assam, India, Edited by R. S. Paul and S. Tewari, 2014, p. 44.

16. P. Deb Roy, **H. S. Das** and B. J. Medhi, 2014. *Polarimetric studies of Comet C/2012 L2 (LINEAR)*. In *Proceedings of the National Seminar on Frontiers of Research in Physical Sciences* (ISBN: 978-81-931268-0-6), held during 21-23 September 2014, at Karimganj College, Karimganj, Assam, India, Edited by R. S. Paul and S. Tewari, 2014, p. 51.

15. A. Das, **H. S. Das** and B. J. Medhi, 2014. *Photopolarimetric studies of CB34 Bok globule*. In *Proceedings of the National Seminar on Frontiers of Research in Physical Sciences* (ISBN: 978-81-931268-0-6), held during 21-23 September 2014, at Karimganj College, Karimganj, Assam, India, Edited by R. S. Paul and S. Tewari, 2014, p. 56.

14. A. Chakraborty, **H. S. Das** and D. Paul, 2014. *Polarimetric study of some star forming clouds*. In *Proceedings of the National Seminar on Frontiers of Research in Physical Sciences* (ISBN: 978-81-931268-0-6), held during 21-23 September 2014, at Karimganj College, Karimganj, Assam, India, Edited by R. S. Paul and S. Tewari, 2014, p. 59.

13. J. Paul, A. Nag, **H. S. Das** and R. Bhattacharjee, 2014. *Generation of sheath in magnetized plasma containing dust grains with varying charges*. In *Proceedings of the National Seminar on Frontiers of Research in Physical Sciences* (ISBN: 978-81-931268-0-6), held during 21-23

September 2014, at Karimganj College, Karimganj, Assam, India, Edited by R. S. Paul and S. Tewari, 2014, p. 188.

12. **H. S. Das**, **2011**. *Astrophysics teaching at Assam University, Silchar*. In *Proceedings of the 29th Meeting of the Astronomical Society of India* (ISBN 978-81-922926-1-8), held during 23-25 February, 2011. ASI Conference Series, Vol. 3, Edited by P. Khare and C.H. Ishwara-Chandra, 2011, p. 169.

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