

BAA Jupiter Section publications, 2022-2025

Full-length papers in JBAA by Section members:

McKim R (2022 Feb.) JBAA 132 (no.1), 31-47. **‘Jupiter in 1949 and Revival of the South Equatorial Belt.’**

McKim R (2022 June) JBAA 132 (no.3), 169-180. **‘Jupiter in 1950 and the aftermath of a SEB Revival.’**

Sussenbach E & Sussenbach J (2022 Oct.) , JBAA 132, no.5, 303-5. **“Occultation of 44 Cap by the Jovian satellite Io on 2021 April 2”.**

McKim R (2024 Feb.) JBAA 134 (no.1), 41-49. **‘The opposition of Jupiter, 1953-54’.**

McKim R (2024 April) JBAA 134 (no.2), 125-135. **‘The opposition of Jupiter, 1954-55’.**

McKim R (2024 Aug.) JBAA 134 (no.4), 281-294. **‘The opposition of Jupiter, 1955-56’.**

McKim R (2025 June) JBAA 135 (no.3), 195-204. **‘The opposition of Jupiter, 1959’.**

Hooker C (2024 Aug.) JBAA 134 (no.4), 270-272. **‘Imaging the sodium cloud of Io’.**

News items etc. in JBAA:

Rogers J (2022 Dec.), “Jupiter in 2021/22”. JBAA 132 (no.6), 348-351;

Boyd D (2023 June), “Detecting Io’s sodium emission spectroscopically”. JBAA 133, p.142-3.

Arditti D (2023 Oct.), ‘Imaging Jupiter’. JBAA 133 (no.5), 290-1 [& see drawings on p.275 & cover].

Rogers J (2024 April) JBAA 134 (no.2), 94-97. News note: ‘Jupiter in 2022 & 2023. Part I: Amateur observations’. & (2024 June) JBAA 134 (no.3), 176-180. *ibid.* ‘Part II: The Juno mission and the Galilean moons’.

Rogers J (2024 Oct.) JBAA 134 (no.5), 314-318. News: ‘Juno’s imaging of Io in 2024’.

Bains I (2025 Feb.) JBAA 135 (no.1), 4. News: ‘Pro-am research shows that Jupiter’s clouds are not made of ammonia ice’.

Collaborative papers from Jupiter Section members

*(mostly the Director with the JunoCam team & others; **amateur contributors are in blue**):*

J.H. Rogers, G. Eichstädt, C.J. Hansen, G.S. Orton, T. Momary, **A. Casely, G. Adamoli, M. Jacquesson, R. Bullen, D. Peach,** T. Olivetti, S. Brueshaber, M. Ravine, S. Bolton. **‘Flow patterns of Jupiter’s south polar region.’** *Icarus* 372, paper 114742 (2022 Jan.; online, 2021 Nov.).
<https://doi.org/10.1016/j.icarus.2021.114742>

R. Hueso, P. Inurrigarro, A. Sanchez-Lavega, **C.R. Foster, J.H. Rogers,** G.S. Orton, C. Hansen, **G. Eichstadt,** I. Ordonez-Etxeberria, J. Felix Rojas, S.R. Brueshaber, J. Sanz-Requena, S. Pérez-Hoyos, M.H. Wong, T.W. Momary, B. Jonsson, A. Antuñano, K. H. Baines, E.K. Dahl, **S. Mizumoto, C. Go,**

A.Anguiano-Arteaga. ‘Convective storms in closed cyclones in Jupiter’s South Temperate Belt: I. Observations’ *Icarus* 380, 114994 (2022) [Clyde’s spot]. <https://doi.org/10.1016/j.icarus.2022.114994>

Bardet D, Donnelly PT, Fletcher LN, Antuñano A, Roman MT, Sinclair JA, Orton GS, Tao C, Rogers JH, Melin H, Harkett J (2024). "Investigating Thermal Contrasts Between Jupiter's Belts, Zones, and Polar Vortices with VLT/VISIR" *JGR-Planets*, Paper #2023JE007902RR, <http://doi.org/10.1029/2023JE007902>. Available at: <https://arxiv.org/abs/2401.05463>

Hill SM, Irwin PGJ, Alexander C, & Rogers JH (2024 Aug.). ‘Spatial Variations of Jovian Tropospheric Ammonia via Ground-Based Imaging’, *Earth and Space Science*, Volume 11 (no. 8), paper e2024EA003562. <https://doi.org/10.1029/2024EA003562>

Irwin PGJ, Hill SM, Fletcher LN, Alexander C & Rogers JH (2025 Jan.), ‘Clouds and ammonia in the atmospheres of Jupiter and Saturn determined from a band-depth analysis of VLT/MUSE observations’, *Journal of Geophysical Research - Planets*. <https://doi.org/10.1029/2024JE008622>.

Brueshaber SR, Zhang Z, Orton SO, Oyafuso F, Brown S, Levin S, Grassi D, Mura A, Eichstädt G, Hansen CJ, Fletcher LN, Mizumoto S, Rogers JH, Wong MH, Sankar S & Bolton S (2025). ‘Multi-Instrument Sounding of a Jovian Thunderstorm from Perijove 38’ *Icarus* 432, no.116465 (2025). <https://doi.org/10.1016/j.icarus.2025.116465>

L.N.Fletcher, Z.Zhang, S.Brown, F.A.Oyafuso, J.H.Rogers, M.H. Wong, A.Mura, G.Eichstädt, G.S.Orton, S.Brueshaber, R.Sankar, C. Li, S.M.Levin, F.Biagiotti, T.Guillot, D.Grassi, C.J.Hansen, S. Bolton, J.H.Waite. ‘Structure of Jupiter’s High-Latitude Storms: Folded Filamentary Regions Revealed by Juno.’ *JGR-Planets*, in press (2025/26). Available at: <https://arxiv.org/abs/2512.15696>

Abstracts for the European Planetary Science Congress (EPSC)

(These are mini-papers about 2 pages long, with Section member(s) as co-authors, in many cases with the NASA JunoCam team, and/or other professionals, and/or other citizen scientists.)

EPSC abstracts, 2022 (Granada):

Orton G, Momary T, Brueshaber S, Hansen C, Bolton S & Rogers J. ‘The Juno Extended Mission: A Call for Continued Support from Amateur Observers’ EPSC Abstracts Vol. 16, EPSC2022-769. <https://doi.org/10.5194/epsc2022-769>.

Rogers J, Mizumoto S, Hansen C, Eichstaedt G, Orton G, Momary T, Adamoli G, Bullen R, Jacquesson M, & Mettig H-J. ‘The transformation of Jupiter’s North Equatorial Belt in 2021-22.’ EPSC Abstracts Vol. 16, EPSC2022-17. <https://doi.org/10.5194/epsc2022-17>.

Rogers J, Adamoli G, Hansen C, Eichstaedt G, Orton G, Momary T, Jacquesson M, Bullen R, & Mettig H-J. ‘Jupiter’s high-latitude northern domains: Dynamics from Earth-based and JunoCam imaging.’ EPSC Abstracts Vol. 16, EPSC2022-16. <https://doi.org/10.5194/epsc2022-16>.

Leigh Fletcher et al., ‘Juno Characterisation of Cyclonic ‘Folded Filamentary Regions’ within Jupiter’s Polar Domains’. EPSC Abstracts Vol. 16, EPSC2022-475 <https://doi.org/10.5194/epsc2022-475>.

Steven M. Hill & John Rogers [presenter]: ‘Jupiter Ammonia Absorption Imaging: Highlights 2020-21’. EPSC Abstracts Vol. 16, EPSC2022-802 <https://doi.org/10.5194/epsc2022-802>.

EPSC Abstracts, 2024 (Berlin)

John Rogers et al.

Longevity of cyclonic formations in Jupiter's S2 (South South Temperate) Domain.

(J. Rogers, C. Hansen, G. Eichstaedt, G. Orton, T. Momary, G. Adamoli, R. Bullen, M. Jacquesson, M. Vedovato, H-J. Mettig.) EPSC Abstracts Vol. 17, EPSC2024-378. <https://doi.org/10.5194/epsc2024-378>.

Gerald Eichstädt et al., Counter-rotating cores in Jupiter's circum-polar cyclones observed by JunoCam and modeled in 2D

(G. Eichstädt, S. Brueshaber, C. Li, J. Rogers, G. Orton, C. Hansen, S. Bolton.) EPSC Abstracts Vol. 17, EPSC2024-154. <https://doi.org/10.5194/epsc2024-154>.

John Rogers et al. Jupiter's South Temperate Domain: Origins of new cyclonic features and a change in the cyclic regime, 2019-2024.

(J. Rogers, C. Hansen, G. Eichstaedt, G. Orton, T. Momary, G. Adamoli, R. Bullen, C. Foster, M. Jacquesson, M. Vedovato, H-J. Mettig.) EPSC Abstracts Vol. 17, EPSC2024-362. <https://doi.org/10.5194/epsc2024-362>.

Steven Hill, P. Irwin, C. Alexander & J. Rogers, Characteristics and Changes in Ammonia Abundance Features in Jupiter's Upper Troposphere 2022-2023.

EPSC Abstracts Vol. 17, EPSC2024-160. <https://doi.org/10.5194/epsc2024-160>.

Glenn Orton et al.

The Juno Extended Mission: A Final Call for Continued Support from Amateur Observers

(G. Orton, J. Rogers, T. Momary, S. Brueshaber, C. Hansen, S. Bolton, L. Fletcher.) EPSC Abstracts Vol. 17, EPSC2024-134. <https://doi.org/10.5194/epsc2024-134>.

EPSC Abstracts, 2025 (Helsinki)

Rogers JH et 13 al., 'Jupiter's NTBs jet outbreak 2025: Convective plumes and plumelets'.

EPSC Abstracts Vol. 18, EPSC-DPS 2025-45. <https://doi.org/10.5194/epsc-dps2025-45>.

Rogers JH et 8 al., 'Jupiter's NTBs jet outbreak 2025: Zonal winds at cloud-tops and below'

EPSC Abstracts Vol. 18, EPSC-DPS 2025-51. <https://doi.org/10.5194/epsc-dps2025-51>

S. Brueshaber, I. Williams, J.H. Rogers [presenter], G. Eichstadt, G. Orton, C. Hansen, L.N. Fletcher, & S. Bolton. 'Morphological and Positional Changes in Jupiter's Northern Polar Cyclones'

EPSC Abstracts Vol. 18, EPSC-DPS2025-711. <https://doi.org/10.5194/epsc-dps2025-711>

S.M. Hill, P. Irwin, J. Rogers, & L. Fletcher. 'Optically Observed Ammonia in the Northern Equatorial Zone'

EPSC Abstracts Vol. 18, EPSC-DPS2025-1174. <https://doi.org/10.5194/epsc-dps2025-1174>