

Yohai Kaspi

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Research Interests: Geophysical fluid dynamics; general circulation of atmospheres and oceans; climate dynamics; dynamics of giant planet atmospheres and interiors; gravity science; atmospheric occultations.

Education

Postdoc	Atmospheric Dynamics California Institute of Technology, Pasadena, CA	2008-2011
Ph.D.	Physical Oceanography Massachusetts Institute of Technology (MIT), Cambridge, MA, and Woods Hole Oceanographic Institution (WHOI), Woods Hole, MA, Joint Program	2008
M.Sc.	Physics Weizmann Institute of Science (WIS), Rehovot, Israel	2002
B.Sc.	Physics and Mathematics Hebrew University, Jerusalem, Israel	2000

Professional Appointments

• Professor, Weizmann Institute of Science	2022 - present
• Associate Professor, Weizmann Institute of Science	2017 - 2022
• Assistant Professor, Weizmann Institute of Science	2011 - 2017

Professional Activities

- Chair, Weizmann Institute Postdoctoral Training Program
- Chair, Weizmann Institute Helen Kimmel Center for Planetary Science
- Chair, American Meteorological Society's Atmosphere & Ocean Fluid Dynamics (AOFD) committee
- Co-PI, 3GM instrument for ESA's JUICE mission to Jupiter and the Galilean satellites
- Co-I, NASA Juno mission to Jupiter

Honors

• NASA Honors Medal for Exceptional Individual Scientific Achievement	2023
• Peking University Distinguished Lecturer	2023
• Japanese Society for the Promotion of Science (JSPS) Visitors Scholar Fellowship	2018
• Princeton GFDL Visitors Scholar Fellowship	2017
• Weizmann Institute Scientific Council Prize of Excellence	2017
• EU Marie Curie Award	2012
• NASA Group Achievement Award, Juno Science Team	2012
• NOAA Climate and Global Change Postdoctoral Award Fellowship	2008
• Teaching Excellence Award, MIT	2007
• Charney Prize, MIT	2003
• MIT Presidential Fellowship	2002

Teaching

- The global circulation of the atmosphere, WIS Spring 2015, Spring 2019
- Global warming debates, WIS Fall 2013
- Atmospheric and oceanic baroclinic instability theory, WIS & IUI Eilat Spring 2013
- Atmospheric and oceanic fluid dynamics, WIS Fall 2012, Fall 2015, Fall 2018, Fall 2020, Fall 2022
- Turbulence in the oceans and atmospheres, WIS Fall 2016
- Planetary Climate, WIS Spring 2022

Service

- Co-Organizer of the Latsis Symposium on Atmosphere and Climate Dynamics: From Clouds to Global Circulations, Zurich, Switzerland, June 2014.
- Co-Organizer of the GFD Days Symposium, Sde Boqer, Israel, 2015, 2016, 2017, 2019 & 2022.
- Co-Organizer of Stormtracks 2018: Perspectives on storm tracks in a changing climate, Uto, Sweden, August, 2018.
- Organizer of AMS Atmospheres and Oceans Fluid Dynamics meeting, USA, 2022.
- Organizer of Departmental seminar, Earth and Planetary Sciences, WIS, 2011-2019.
- Weizmann Institute Scientific Appointments Committee (V9). 2019 - 2022
- Weizmann Institute Steering Committee of the Scientific Council 2022 - present
- Peer-review journal reviewer: Nature, Science, PNAS, Nature Geoscience, Nature Climate Change, Nature Astronomy, Nature Communications, Icarus, Geophysical Research Letters, The Astrophysical Journal, Fluid Dynamics Research, Journal of the Atmospheric Sciences, Quarterly Journal of the Royal Meteorological Society, Journal of Climate, Journal of Geophysical Research, Journal of Hydrometeorology, Climate Dynamics, Planetary and Space Science, Monthly Notices of the Royal Astronomical Society, Physics of the Earth and Planetary Interiors.
- Grant reviewer: ERC-STG, NERC, NASA Outer Planets program, NASA Solar Systems Research Programs, NSF, Israeli Science Foundation, German-Israeli Science Foundation, NSFC-ISF, Leverhulme Trust, Deutsche Forschungsgemeinschaft, Pazi Foundation, Swiss National Science Foundation.

Students and Postdocs supervised

MSc

- Rei Chemke 2012-2014
Thesis title: Poleward migration of eddy-driven jets.
- Ilai Guendelman 2015 - 2017
Thesis title: Hadley cell dynamics over a wide range of orbital parameters.
- Keren Duer 2016 - 2018
Thesis title: The interaction between Jupiter's magnetic field its atmospheric flows.
- Dana Raiter 2018 - 2020
Thesis title: The global tropical circulation and its changes under global warming
- Or Hadas 2018 - 2021
Thesis title: Suppression of baroclinic eddies by strong jets
- Maayan Ziv 2022 - present
Topic: Giant planet interior structure

- Erez Aviv 2022 - present
Topic: Jet-stream dynamics under climate change
- Rachel Navon 2023 - present
Topic: Venus atmospheric dynamics and thermal tides

PhD

- Talia Tamarin-Brodsky 2012-2017
Thesis title: The poleward deflection of midlatitude storm tracks and its variation under climate change.
Current position: Assistant Professor, MIT
- Rei Chemke 2014-2017
Thesis title: The latitudinal dependence of geostrophic turbulence in the atmosphere.
Current position: Assistant Professor, Weizmann Institute
- Janni Yuval 2013-2017
Thesis title: Sensitivity of atmospheric turbulence to the spatial structure of baroclinicity: implications for storm tracks and climate change.
Current position: Assistant Professor, Tel Aviv University
- Hilla Afargan-Gerstman 2012-2018
Thesis title: The seasonal cycle of storm track eddies.
Current position: Postdoctoral fellow, ETH Zurich
- Ilai Guendelman 2017 - 2022
Thesis title: Seasonal effects on planetary climate
Current position: Postdoctoral fellow, Princeton University
- Keren Duer 2018 - 2023
Thesis title: Deep atmospheric jets and circulation on giant planets
Current position: Postdoctoral fellow, Weizmann Institute
- Nimrod Gavriel 2020 - present
Thesis topic: Geophysical vortices
- Maria Smirnova 2020 - present
Thesis topic: Atmospheric radio-occultations
- Or Hadas 2021 - present
Topic: Storm track dynamics

Postdoc

- Marzia Parisi 2014-2016
Research topic: Determining the depth of Jupiter's Great Red Spot with Juno's gravity measurements
Current position: Senior Research Scientist, Jet Propulsion Laboratory
- Morgan E. O'Neill 2015-2017
Research topic: Convection on fluid planets
Current position: Assistant Professor, Stanford University
- Soumik Ghosh 2020-2023
Research topic: Ferrel cell dynamics
Current position: Postdoctoral fellow, Canadian Climate Center
- Meir Zeilig-Hess 2021-2023
Research topic: Tropical cyclones
Current position: Senior Scientist, Rafael

Publications

Bold face denotes members of the Kaspi Research group

105. **Kaspi, Y., E. Galanti, R. S. Park, K. Duer, N. Gavriel, D. Durante, L. Iess, M. Parisi, D. Buccino, T. Guillot, D. J. Stevenson and S. J. Bolton**, 2023, Observational evidence for cylindrically oriented zonal flows on Jupiter, *Nature Astronomy*. [link](#)
104. **Duer K., E. Galanti and Y. Kaspi**, 2023, What determines the extent and strength of the equatorial zonal flows on Jupiter and Saturn?, in revision.
103. Okajima S., H. Nakamura H. and **Y. Kaspi**, 2023, Anticyclonic suppression of the North Pacific transient eddy activity in midwinter, in revision.
102. **Raiter D., E. Galanti, R. Chemke and Y. Kaspi**, 2023, Future tropical precipitation changes are dominated by a large-scale meridional circulation shift, in revision.
101. **Duer K., E. Galanti and Y. Kaspi**, 2023, Gas giant simulations of eddy-driven jets accompanied by deep meridional circulation, *AGU Advances*, 4, e2023AV000908. [link](#)
100. **Gavriel N. and Kaspi Y.**, 2023, The westward drift of Jupiter's polar cyclones explained by a center-of-mass approach, *Geophys. Res. Lett.*, Vol. 50, 19, e2023GL103635. [link](#)
99. Fletcher, L., T. Cavalie, D. Grassi, R. Hueso, L. M. Lara, **Y. Kaspi, E. Galanti** et al., 2023, Jupiter science enabled by ESA's Jupiter Icy Moons Explorer, *Space Sci. Rev.*, 219, 7, 53. [link](#)
98. **Hadas O., G. Datseris, J. Blanco, S. Bony, R. Caballero, B. Stevens and Y. Kaspi**, 2023, The role of baroclinic activity in controlling Earth's albedo in the present and future climates, *Proc. Nat. Acad. Sci. (PNAS)*, Vol. 120, 5, e220877812. [link](#)
97. Okajima S., H. Nakamura H. and **Y. Kaspi**, 2023, Distinct Roles of Cyclones and Anticyclones in Setting the Midwinter Minimum of the North Pacific Eddy Activity: A Lagrangian Perspective, *J. Climate*, Vol. 36, 14, p. 4793-4814. [link](#)
96. **Galanti E., Y. Kaspi** and T. Guillot, 2023, The Shape of Jupiter and Saturn Based on Atmospheric Dynamics, Radio Occultations and Gravity Measurements, *Geophys. Res. Lett.*, Vol. 50, 6, e2022GL102. [link](#)
95. Howard S., Guillot T., Bazot M., **Galanti E., Y. Kaspi**, 2023, Jupiter's interior from Juno: Equation-of-state uncertainties and dilute core extent, *Astronomy and Astrophysics*, 672, A33. [link](#)
94. Blanco J. A., R. Caballero, G. Datseris, B. Stevens, S. Bony, **O. Hadas and Y. Kaspi**, 2023, A cloud-controlling factor perspective on the hemispheric asymmetry of extratropical cloud albedo, *J. Climate*, Vol. 36, 6, p. 1793-1804. [link](#)
93. Datseris G., J. Blanco, **O. Hadas, S. Bony, R. Caballero, Y. Kaspi** and B. Stevens, 2023, Minimal recipes for global cloudiness *Geophys. Res. Lett.*, 49, 20, e2022GL099. [link](#)
92. **Gavriel N. and Y. Kaspi**, 2022, The oscillatory motion of Jupiter's polar cyclones results from vorticity dynamics, *Geophys. Res. Lett.*, Vol. 49, e2022GL098708. [link](#)
91. **Guendelman I. and Y. Kaspi**, 2022, The key factors controlling the seasonality of planetary climate *AGU Advances*, e2022AV000684. [link](#)
90. Durante D., T. Guillot, L. Iess, D. J. Stevenson, C. R. Mankovich, S. Markham, **E. Galanti, Y. Kaspi, M. Zannoni, L. Gomez Casajus, G. Lari, M. Parisi, D. R. Buccino, R. S. Park, S. J. Bolton**, 2022, Evidence for Jupiter's normal modes from Juno gravity measurements, *Nature Communications*, 13, 4632. [link](#)

89. Militzer B., W. B. Hubbard, S. Wahl, J. I. Lunine, **E. Galanti, Y. Kaspi**, Y. Miguel, T. Guillot, K. M. Moore, M. Parisi, J. E. P. Connerney, R. Helled, H. Cao, C. Mankovich, D. J. Stevenson, R. S. Park, M. Wong, S. K. Atreya, J. Anderson, S. J. Bolton, 2022, Juno spacecraft measurements of Jupiter's gravity imply a dilute core, *Planetary. Sci. J.*, Vol. 3, 185. [link](#)
88. Miguel Y., M. Bazot, T. Guillot, S. Howard, **E. Galanti, Y. Kaspi**, W. B. Hubbard, B. Militzer, R. Helled, S. K. Atreya, J. E. P. Connerney, D. Durante, L. Kulowski, J. I. Lunine, D. J. Stevenson, and S. Bolton, 2022, Jupiter's inhomogeneous envelope, *Astronomy and Astrophysics*, 662, A18. [link](#)
87. **Guendelman, I.**, D. Waugh, and **Y. Kaspi**, 2022, The seasonal cycle of polar vortices on terrestrial planets, *Planetary. Sci. J.*, Vol. 3, 94. [link](#)
86. Okajima S., H. Nakamura and **Y. Kaspi**, 2022, Energetics of transient eddies related to the midwinter minimum of the North Pacific storm-track, *J. Climate*, Vol. 35, 1137–1156. [link](#)
85. **Galanti E., D. Raiter, Y. Kaspi** and Tziperman E., 2022, Spatial patterns of the tropical meridional circulation: drivers and teleconnections, *J. Geophys. Res.*, Vol. 127, e2021JD035. [link](#)
84. **Duer, K., N. Gavriel, E. Galanti, Y. Kaspi**, L. N. Fletcher, T. Guillot, S. J. Bolton, S. M. Levin, S. K. Atreya, D. Grassi, A. P. Ingersoll, C. Li, L. Li, J. I. Lunine, G. S. Orton, F. A. Oyafuso, J. H. Waite, 2021, Evidence for multiple Ferrel-like cells on Jupiter, *Geophys. Res. Lett.*, Vol. 48, 2021GL095651. [link](#)
83. **Gavriel N.** and **Y. Kaspi**, 2021, The number and location of circumpolar cyclones on Jupiter explained by vorticity dynamics, *Nature Geoscience*, Vol. 14, 559–563. [link](#)
82. Parisi, M., **Y. Kaspi, E. Galanti**, D. Durante, S. J. Bolton, S. M. Levin, D. R. Buccino, L. N. Fletcher, W. M. Folkner, T. Guillot, R. Helled, L. Iess, C. Li, K. Oudrhiri, M. H. Wong, 2021, The depth of Jupiter's Great Red Spot constrained by the Juno gravity overflights, *Science*, Vol. 374, 964-968. [link](#)
81. Bolton S. J., S. M. Levin, T. Guillot, C. Li, **Y. Kaspi**, G. Orton, M. H. Wong, F. A. Oyafuso, M. Allison, J. Arballo, S. Atreya, H. N. Becker, J. Bloxham, S. Brown, L. N. Fletcher, **E. Galanti**, S. Gulkis, M. Janssen, A. P. Ingersoll, J. L. Lunine, S. Misra, P. Steffes, D. J. Stevenson, J. H. Waite, R. K. Yadav, Z. Zhang, 2021, Microwave observations reveal the deep extent and structure of Jupiter's atmospheric vortices, *Science*, Vol. 374, 968-972. [link](#)
80. Nettelmann, N., N. Movshovitz, D. Ni, J. J. Fortney, **E. Galanti, Y. Kaspi**, R. Helled, C. R. Mankovich and S. J. Bolton, Theory of Figures to the 7th order and the interiors of Jupiter and Saturn, *Planetary. Sci. J.*, 2, 6, 241. [link](#)
79. **Guendelman I.**, D. Waugh and **Y. Kaspi**, 2021, The emergence of a summer hemisphere jet in planetary atmospheres, *J. Atmos. Sci.*, Vol. 78, 10, p. 3337–3348. [link](#)
78. Fletcher L. N., F. A. Oyafuso, M. D. Allison M. D., A. P. Ingersoll, L. Li, **Y. Kaspi, E. Galanti**, M. H. Wong, G. S. Orton, **K. Duer**, Z. Zhang, C. Li, T. Guillot, S. M. Levin, S. J. Bolton, 2021, Jupiter's Temperate Belt/Zone Contrasts Revealed at Depth by Juno Microwave Observations (2021) *J. Geophys. Res.*, 126, 10, e2021JE006858. [link](#)
77. **Hadas O.** and **Y. Kaspi**, 2021, Suppression of baroclinic eddies by strong jets, *J. Atmos. Sci.*, Vol. 76, 2445–2457. [link](#)
76. Lee S. and **Y. Kaspi**, 2021, Towards an understanding of the structure of Jupiter's atmosphere using the ammonia distribution and the Transformed Eulerian Mean theory, *J. Atmos. Sci.*, Vol. 76, 2047–2056. [link](#)
75. **Galanti E., Y. Kaspi, K. Duer**, L. N. Fletcher, A. P. Ingersoll, C. Li, G. S. Orton, T. Guillot, S. M. Levin and S. J. Bolton, 2021, Constraints on the latitudinal profile of Jupiter's deep jets, *Geophys. Res. Lett.*, 48, 9, e2021GL092912. [link](#)
74. Okajima S., H. Nakamura and **Y. Kaspi**, 2021, Cyclonic and anticyclonic contributions to atmospheric energetics, *Scientific Reports*, Vol. 11, 13202. [link](#)

73. Fletcher et al., 2021, Ice giant system exploration within ESA's Voyage 2050, *Experimental Astronomy*, pp. 12. [link](#)
72. **Galanti E.** and **Y. Kaspi**, 2021, Combined magnetic and gravity measurements probe the deep zonal flows of the gas giants, *Mon. Not. Royal Astronom. Soc.*, 501, 2, 2352-2362. [link](#)
71. **Kaspi, Y., E. Galanti**, A. P. Showman, D. J. Stevenson, T. Guillot, L. Iess and S. J. Bolton, 2020 Comparison of the deep atmospheric dynamics of Jupiter and Saturn in light of the Juno and Cassini gravity measurements, *Space Sci. Rev.*, 216, 5, 84. [link](#)
70. Parisi M., **E. Galanti**, W. M. Folkner, **Y. Kaspi** and D. R. Buccino, Resolving the latitudinal short-scale gravity field of Jupiter using Slepian functions, *J. Geophys. Res.*, 125, e2020JE006416. [link](#)
69. **Raiter, D., E. Galanti** and **Y. Kaspi**, 2020, The tropical atmospheric conveyor belt: A coupled Eulerian-Lagrangian analysis of the large-scale tropical circulation, *Geophys. Res. Lett.*, 47, 10, e2019GL086. [link](#)
68. **Duer K., E. Galanti** and **Y. Kaspi**, 2020, The range of Jupiter's flow structures fitting the Juno asymmetric gravity measurements, *J. Geophys. Res.*, 125, e2019JE006292. [link](#)
67. Lachmy O. and **Y. Kaspi**, 2020, The role of diabatic heating in Ferrel cell dynamics, *Geophys. Res. Lett.*, 47, 23, 2020GL0906. [link](#)
66. Fletcher L. N., **Y. Kaspi**, T. Guillot and A. P. Showman, 2020, How well do we understand the belt/zone circulation of Giant Planet atmospheres?, *Space Sci. Rev.*, 216, 2, 30. [link](#)
65. T. Imamura, J. Mitchell, S. Lebonnois, **Y. Kaspi**, A. P. Showman and O. Korabely, 2020, Superrotation in planetary atmospheres. *Space Sci. Rev.*, 216, 5, 87. [link](#)
64. **Guendelman I.** and **Y. Kaspi**, 2020, Atmospheric dynamics on terrestrial planets with eccentric orbits, *Astrophys. J.*, 901:46. [link](#)
63. Fletcher et al., 2020, Ice Giant Systems: The Scientific Potential of Missions to Uranus and Neptune, *Planet. and Space Sci.*, 191, 105030. [link](#)
62. **Yuval J.** and **Y. Kaspi**, 2020, Eddy activity response to global warming like temperature changes, *J. Climate*, Vol. 33, 1381-1404. [link](#)
61. Parisi M., W. M. Folkner, **E. Galanti, Y. Kaspi**, D. R. Buccino, K. Oudrhiri and S. J. Bolton, 2020, A mascon approach to estimating the depth of Jupiter's Great Red Spot with the Juno mission, *Planet. and Space Sci.*, 181, 104781. [link](#)
60. **Duer K., E. Galanti** and **Y. Kaspi**, 2019, Analysis of Jupiter's deep jets combining Juno gravity and time varying magnetic field measurements, *Geophys. Res. Lett.*, 879:L22. [link](#)
59. **Guendelman I.** and **Y. Kaspi**, 2019, Atmospheric dynamics on terrestrial planets: the seasonal response to changes in orbital, rotational and radiative timescales, *Astrophys. J.*, 881:67. [link](#)
58. **Galanti E., Y. Kaspi**, F. J. Simons, D. Durante, M. Parisi, S. J. Bolton, 2019, Determining the depth of Jupiter's Great Red Spot: a Slepian approach. *Astrophys. J.*, 874:L24. [link](#)
57. Iess L., B. Militzer, **Y. Kaspi**, P. Nicholson, D. Durante, P. Racioppa, A. Anabtawi, **E. Galanti**, W. Hubbard, M. J. Mariani, P. Tortora, S. Wahl, M. Zannoni, 2019, Measurement and implications of Saturn's gravity field and ring mass, *Science*, Vol. 364, 1052. [link](#)
56. **Galanti E., Y. Kaspi**, Y. Miguel, T. Guillot, D. Durante, P. Racioppa, and L. Iess, 2019, Saturn's deep atmosphere revealed by the Cassini Grand Finale gravity measurements. *Geophys. Res. Lett.*, Vol. 46, 616-624. [link](#)
55. Galperin, B., S. Sukoriansky, R.M.B. Young, **R. Chemke, Y. Kaspi**, P.L. Read N. Dikovskaya, 2019, Barotropic and geostrophic turbulence, ISSI Zonal Jets book chapter. [link](#)

54. Sanchez-Lavega A., L. Sromovsky, A. P. Showman, A. D. Del Genio, R. Young, E. Garcia-Melendo, **Y. Kaspi**, G. S. Orton, N. Barrado-Izagirre, D. Choi, and J. M. Barbara, 2019, Zonal jets in gas giants, ISSI Zonal Jets book chapter. [link](#)
53. **Guendelman I.** and **Y. Kaspi**, 2018, An axisymmetric limit for the width of the Hadley cell in a planet with large obliquity and long seasonality, *Geophys. Res. Lett.*, Vol. 45, 13213–13221. [link](#)
52. **Yuval J.**, **Afargan, H.** and **Y. Kaspi**, 2018, The seasonal subtropical to eddy-driven jet transition leading to a Pacific midwinter minimum in eddy activity, *Geophys. Res. Lett.*, Vol. 45, 9995-10002. [link](#)
51. **Kaspi Y.**, **E. Galanti**, W. B. Hubbard, D. J. Stevenson, S. J. Bolton, L. Iess, T. Guillot, J. Bloxham, J. E. P. Connerney, H. Cao, D. Durante, W. M. Folkner, R. Helled, A. P. Ingersoll, S. M. Levin, J. I. Lunine, Y. Miguel, B. Militzer, M. Parisi and S. M. Wahl 2018, Jupiter’s atmospheric jet streams extend thousands of kilometers deep, *Nature*, Vol. 555, 223-226. [link](#)
50. Iess L., W. M. Folkner, D. Durante, M. Parisi, **Y. Kaspi**, **E. Galanti**, T. Guillot, W. B. Hubbard, D. J. Stevenson, J. D. Anderson, D. R. Buccino, L. Gomez Casajus, A. Milani, R. Park, P. Racioppa, D. Serra, P. Tortora, M. Zannoni, H. Cao, R. Helled, J. I. Lunine, Y. Miguel, B. Militzer, S. Wahl, J. E. P. Connerney, S. M. Levin and S. J. Bolton. Measurement of Jupiter’s asymmetric gravity field, 2018, *Nature*, Vol. 555, 220-222. [link](#)
49. Guillot T., Y. Miguel, B. Militzer, W. B. Hubbard, **Y. Kaspi**, **E. Galanti**, H. Cao, R. Helled, S. M. Wahl, L. Iess, W. M. Folkner, D. J. Stevenson, J. I. Lunine, D. R. Reese, A. Biekman, M. Parisi, D. Durante, J. E. P. Connerney, S. M. Levin and S. J. Bolton 2018, A suppression of differential rotation in Jupiter’s deep interior, *Nature*, Vol. 555, 227-230. [link](#)
48. **Yuval J.** and **Y. Kaspi**, 2018, Eddy response to changes in jet characteristics, *J. Atmos. Sci.*, Vol. 75, 1371-1383. [link](#)
47. Collins M., S. Minobe, M. Barreiro, S. Bordoni, **Y. Kaspi**, A. Kuwano-Yoshida, N. Keenlyside, E. Manzini, C. H. O’Reilly, R. Sutton, S-P. Xie and O. Zolina, 2018, Climate dynamics and regional climate change, *Nature Climate Change*, Vol. 8, 101-108. [link](#)
46. Showman A. P., **Y. Kaspi**, R. Achterberg and A. P. Ingersoll, 2018, The global atmospheric circulation of Saturn, Invited review chapter for: Saturn in the 21st Century. [link](#)
45. **Tamarin, T.** and **Y. Kaspi**, 2017, Enhanced poleward propagation of storms under climate change, *Nature Geoscience*, Vol. 10, 908-913. [link](#)
44. **Afargan H.** and **Y. Kaspi**, 2017, A midwinter minimum in Atlantic storm track intensity during years of a strong jet, *Geophys. Res. Lett.*, Vol. 44, 12511–12518. [link](#)
43. **Tamarin T.** and **Y. Kaspi**, 2017, The poleward shift of storm tracks under global warming: a Lagrangian perspective, *Geophys. Res. Lett.*, Vol. 44, 10666-10674. [link](#)
42. **Galanti E.**, H. Cao and **Y. Kaspi**, 2017, Constraining Jupiter’s internal flows using Juno magnetic and gravity measurements, *Geophys. Res. Lett.*, Vol. 44, 8173-8181. [link](#)
41. **Chemke R.** and **Y. Kaspi**, 2017, Dynamics of massive atmospheres, *Astrophys. J.*, 845:1. [link](#)
40. **Galanti E.** and **Y. Kaspi**, 2017, Prediction for the flow-induced gravity field of Saturn: implications for Cassini’s Grande Finale, *Astrophys. J. Lett.*, 843:L25 [link](#)
39. **Kaspi Y.**, T. Guillot , **E. Galanti**, Y. Miguel, R. Helled, W. B. Hubbard, B. Militzer, S. M. Wahl, S. Levin, J. E. P. Connerney, and S. J. Bolton 2017, The effect of differential rotation on Jupiter’s low-degree even gravity moments, *Geophys. Res. Lett.*, Vol. 44, 5960-5968 [link](#)
38. Bolton S. J., A. Adriani, V. Adumitroaie, M. Allison, J. Anderson, S. Atreya, J. Bloxham, S. Brown, J. E. P. Connerney, E. DeJong, W. Folkner, D. Gautier, D. Grassi, S. Gulkis, T. Guillot, C. Hansen, W. B. Hubbard, L.

- Iess, A. Ingersoll, M. Janssen, J. Jorgensen, **Y. Kaspi**, S. M. Levin, C. Li, J. Lunine, Y. Miguel, A. Mura, G. Orton, T. Owen, M. Ravine, E. Smith, P. Steffes, E. Stone, D. J. Stevenson, R. Thorne, J. Waite, D. Durante, R. W. Ebert, T. K. Greathouse, V. Hue, M. Parisi, J. R. Szalay, R. Wilson, 2017, Jupiter's interior and deep atmosphere: the first close polar pass with the Juno spacecraft, *Science*, Vol. 356, 821-825 [link](#).
37. **Galanti E.**, D. Durante, S. Finocchiaro, L. Iess, and **Y. Kaspi**, 2017, Estimating Jupiter gravity field using Juno measurements, trajectory estimation analysis, and a flow model optimization, *Astronom. J.*, 154:2. [link](#)
36. Wahl S. M., W. B. Hubbard, B. Militzer, T. Guillot, Y. Miguel, N. Movshovitz, **Y. Kaspi**, R. Helled, D. Reese, **E. Galanti**, S. Levin, J.E. Connerney, and S. J. Bolton, 2017, Comparing Jupiter interior structure models to Juno gravity measurements and the role of an expanded core, *Geophys. Res. Lett.*, Vol. 44, Vol. 44, 4649–4659. [link](#)
35. **O'Neill M. E.**, **Y. Kaspi** and L. N. Fletcher, 2017, New interpretation of the Galileo probe sounding indicating a neutrally stable Jovian atmosphere, *Geophys. Res. Lett.*, Vol. 44, 4008-4017. [link](#)
34. **Yuval J.** and **Y. Kaspi**, 2017, The effect of vertical baroclinicity concentration on atmospheric macro-turbulence scaling relations, *J. Atmos. Sci.*, Vol. 74, 1651-1667. [link](#)
33. **Galanti E.** and **Y. Kaspi**, 2017, Decoupling Jupiter's deep and atmospheric flows using the upcoming Juno gravity measurements and a dynamical inverse model, *Icarus*, Vol. 286, 46-55. [link](#)
32. **Tamarin T.** and **Y. Kaspi**, 2017, Mechanisms controlling the poleward deflection of midlatitude storm tracks, *J. Atmos. Sci.*, Vol. 74, 553-572. [link](#)
31. **Galanti E.**, **Y. Kaspi** and E. Tziperman, 2017, A full, self-consistent, treatment of thermal wind balance on oblate fluid planets, *J. Fluid Mech.*, Vol. 810, 175–195. [link](#)
30. **Chemke R.**, **Y. Kaspi** and I. Halevy, 2016, The thermodynamic effect of atmospheric mass on early Earth's temperature, *Geophys. Res. Lett.*, Vol. 43, 11414–11422. [link](#)
29. **O'Neill M. E.** and **Y. Kaspi**, 2016, Slantwise convection on fluid planets, *Geophys. Res. Lett.*, Vol. 43, 10611–10620. [link](#)
28. **Chemke R.**, **T. Dror** and **Y. Kaspi**, 2016, Barotropic kinetic energy and enstrophy transfers in the atmosphere, *Geophys. Res. Lett.*, Vol. 43, 7725–7734. [link](#)
27. **Chemke R.** and **Y. Kaspi**, 2016, The latitudinal dependence of the oceanic barotropic eddy kinetic energy and macro-turbulence energy transport, *Geophys. Res. Lett.*, Vol. 43, 2175–2183. [link](#)
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