



UA SCIENCE

**LUNAR & PLANETARY  
LABORATORY**

## **2021 Refereed Publications with LPL-Affiliated Authors as Queried from SAO/NASA ADS by Month**

2021: "Lunar and Planetary Laboratory" ; "Lunar & Planetary Laboratory" ; "LPL"

### December 2021

Bennett, D. P., Ranc, C., Fernandes, R. B. 2021, The Astronomical Journal **No Sub-Saturn-mass Planet Desert in the CORALIE/HARPS Radial-velocity Sample**

Goossens, S., Rowlands, D. D., Mazarico, E., Liounis, A. J., Small, J. L., Highsmith, D. E., Swenson, J. C., Lyzhoft, J. R., Ashman, B. W., Getzandanner, K. M., Leonard, J. M., Geeraert, J. L., Adam, C. D., Antreasian, P. G., Barnouin, O. S., Daly, M. G., Seabrook, J. A., Lauretta, D. S. 2021, The Planetary Science Journal **Mass and Shape Determination of (101955) Bennu Using Differenced Data from Multiple OSIRIS-REx Mission Phases**

McCubbin, F. M., Lewis, J. A., Barnes, J. J., Elardo, S. M., Boyce, J. W. 2021, Geochimica et Cosmochimica Acta **The abundances of F, Cl, and H<sub>2</sub>O in eucrites: Implications for the origin of volatile depletion in the asteroid 4 Vesta**

Sharkey, B. N. L., Reddy, V., Malhotra, R., Thirouin, A., Kuhn, O., Conrad, A., Rothberg, B., Sanchez, J. A., Thompson, D., Veillet, C. 2021, Communications Earth and Environment **Lunar-like silicate material forms the Earth quasi-satellite (469219) 2016 HO<sub>3</sub> Kamo'oalewa**

Tatsumi, E., Popescu, M., Campins, H., de León, J., García, J. L. R., Licandro, J., Simon, A. A., Kaplan, H. H., DellaGiustina, D. N., Golish, D. R., Lauretta, D. S. 2021, Monthly Notices of the Royal Astronomical Society **Widely distributed exogenic materials of varying compositions and morphologies on asteroid (101955) Bennu**

Tricarico, P., Scheeres, D. J., French, A. S., McMahon, J. W., Brack, D. N., Leonard, J. M., Antreasian, P.,

Chesley, S. R., Farnocchia, D., Takahashi, Y., Mazarico, E. M., Rowlands, D., Highsmith, D., Getzandanner, K., Moreau, M., Johnson, C. L., Philpott, L., Bierhaus, E. B., Walsh, K. J., Barnouin, O. S., Palmer, E. E., Weirich, J. R., Gaskell, R. W., Daly, M. G., Seabrook, J. A., Nolan, M. C., Lauretta, D. S. 2021, Icarus **Internal rubble properties of asteroid (101955) Benu**

Valantinas, A., Becerra, P., Pommerol, A., Tornabene, L. L., Affolter, L., Cremonese, G., Hauber, E., McEwen, A. S., Munaretto, G., Pajola, M., Bowen, A. P., Patel, M. R., Rangarajan, V. G., Schorghofer, N., Thomas, N. 2021, Planetary and Space Science **CaSSIS Color and multi-angular observations of martian slope streaks**

Voigt, J. R. C., Hamilton, C. W., Steinbrügge, G., Scheidt, S. P. 2021, Bulletin of Volcanology **Surface roughness characterization of the 2014-2015 Holuhraun lava flow-field in Iceland: implications for facies mapping and remote sensing**

## November 2021

Aikawa, Y., Cataldi, G., Yamato, Y., Zhang, K., Booth, A. S., Furuya, K., Andrews, S. M., Bae, J., Bergin, E. A., Bergner, J. B., Bosman, A. D., Cleaves, L. I., Czekala, I., Guzmán, V. V., Huang, J., Ilee, J. D., Law, C. J., Le Gal, R., Loomis, R. A., Ménard, F., Nomura, H., Öberg, K. I., Qi, C., Schwarz, K. R., Teague, R., Tsukagoshi, T., Walsh, C., Wilner, D. J. 2021, The Astrophysical Journal Supplement Series **Molecules with ALMA at Planet-forming Scales (MAPS). XIII. HCO<sup>+</sup> and Disk Ionization Structure**

Alarcón, F., Bosman, A. D., Bergin, E. A., Zhang, K., Teague, R., Bae, J., Aikawa, Y., Andrews, S. M., Booth, A. S., Calahan, J. K., Cataldi, G., Czekala, I., Huang, J., Ilee, J. D., Law, C. J., Le Gal, R., Liu, Y., Long, F., Loomis, R. A., Ménard, F., Öberg, K. I., Schwarz, K. R., van't Hoff, M. L. R., Walsh, C., Wilner, D. J. 2021, The Astrophysical Journal Supplement Series **Molecules with ALMA at Planet-forming Scales (MAPS). VIII. CO Gap in AS 209-Gas Depletion or Chemical Processing?**

Ballouz, R.-L., Walsh, K. J., Sánchez, P., Holsapple, K. A., Michel, P., Scheeres, D. J., Zhang, Y., Richardson, D. C., Barnouin, O. S., Nolan, M. C., Bierhaus, E. B., Connolly, H. C., Schwartz, S. R., Çelik, O., Baba, M., Lauretta, D. S. 2021, Monthly Notices of the Royal Astronomical Society **Modified granular impact force laws for the OSIRIS-REx touchdown on the surface of asteroid (101955) Benu**

Bergner, J. B., Öberg, K. I., Guzmán, V. V., Law, C. J., Loomis, R. A., Cataldi, G., Bosman, A. D., Aikawa, Y.,

Andrews, S. M., Bergin, E. A., Booth, A. S., Cleeves, L. I., Czekala, I., Huang, J., Ilee, J. D., Le Gal, R., Long, F., Nomura, H., Ménard, F., Qi, C., Schwarz, K. R., Teague, R., Tsukagoshi, T., Walsh, C., Wilner, D. J., Yamato, Y. 2021, The Astrophysical Journal Supplement Series **Molecules with ALMA at Planet-forming Scales (MAPS). XI. CN and HCN as Tracers of Photochemistry in Disks**

Booth, A. S., Tabone, B., Ilee, J. D., Walsh, C., Aikawa, Y., Andrews, S. M., Bae, J., Bergin, E. A., Bergner, J. B., Bosman, A. D., Calahan, J. K., Cataldi, G., Cleeves, L. I., Czekala, I., Guzmán, V. V., Huang, J., Law, C. J., Le Gal, R., Long, F., Loomis, R. A., Ménard, F., Nomura, H., Öberg, K. I., Qi, C., Schwarz, K. R., Teague, R., Tsukagoshi, T., Wilner, D. J., Yamato, Y., Zhang, K. 2021, The Astrophysical Journal Supplement Series **Molecules with ALMA at Planet-forming Scales (MAPS). XVI. Characterizing the Impact of the Molecular Wind on the Evolution of the HD 163296 System**

Bosman, A. D., Alarcón, F., Bergin, E. A., Zhang, K., van't Hoff, M. L. R., Öberg, K. I., Guzmán, V. V., Walsh, C., Aikawa, Y., Andrews, S. M., Bergner, J. B., Booth, A. S., Cataldi, G., Cleeves, L. I., Czekala, I., Furuya, K., Huang, J., Ilee, J. D., Law, C. J., Le Gal, R., Liu, Y., Long, F., Loomis, R. A., Ménard, F., Nomura, H., Qi, C., Schwarz, K. R., Teague, R., Tsukagoshi, T., Yamato, Y., Wilner, D. J. 2021, The Astrophysical Journal Supplement Series **Molecules with ALMA at Planet-forming Scales (MAPS). VII. Substellar O/H and C/H and Superstellar C/O in Planet-feeding Gas**

Bosman, A. D., Bergin, E. A., Loomis, R. A., Andrews, S. M., van't Hoff, M. L. R., Teague, R., Öberg, K. I., Guzmán, V. V., Walsh, C., Aikawa, Y., Alarcón, F., Bae, J., Bergner, J. B., Booth, A. S., Cataldi, G., Cleeves, L. I., Czekala, I., Huang, J., Ilee, J. D., Law, C. J., Le Gal, R., Liu, Y., Long, F., Ménard, F., Nomura, H., Pérez, L. M., Qi, C., Schwarz, K. R., Sierra, A., Tsukagoshi, T., Yamato, Y., Wilner, D. J., Zhang, K. 2021, The Astrophysical Journal Supplement Series **Molecules with ALMA at Planet-forming Scales (MAPS). XV. Tracing Protoplanetary Disk Structure within 20 au**

Calahan, J. K., Bergin, E. A., Zhang, K., Schwarz, K. R., Öberg, K. I., Guzmán, V. V., Walsh, C., Aikawa, Y., Alarcón, F., Andrews, S. M., Bae, J., Bergner, J. B., Booth, A. S., Bosman, A. D., Cataldi, G., Czekala, I., Huang, J., Ilee, J. D., Law, C. J., Le Gal, R., Long, F., Loomis, R. A., Ménard, F., Nomura, H., Qi, C., Teague, R., van't Hoff, M. L. R., Wilner, D. J., Yamato, Y. 2021, The Astrophysical Journal Supplement Series **Molecules with ALMA at Planet-forming Scales (MAPS). XVII. Determining the 2D Thermal Structure of the HD 163296 Disk**

Cataldi, G., Yamato, Y., Aikawa, Y., Bergner, J. B., Furuya, K., Guzmán, V. V., Huang, J., Loomis, R. A., Qi, C., Andrews, S. M., Bergin, E. A., Booth, A. S., Bosman, A. D., Cleeves, L. I., Czekala, I., Ilee, J. D., Law, C. J., Le Gal,

R., Liu, Y., Long, F., Ménard, F., Nomura, H., Öberg, K. I., Schwarz, K. R., Teague, R., Tsukagoshi, T., Walsh, C., Wilner, D. J., Zhang, K. 2021, The Astrophysical Journal Supplement Series **Molecules with ALMA at Planet-forming Scales (MAPS). X. Studying Deuteration at High Angular Resolution toward Protoplanetary Disks**

Czekala, I., Loomis, R. A., Teague, R., Booth, A. S., Huang, J., Cataldi, G., Ilee, J. D., Law, C. J., Walsh, C., Bosman, A. D., Guzmán, V. V., Gal, R. L., Öberg, K. I., Yamato, Y., Aikawa, Y., Andrews, S. M., Bae, J., Bergin, E. A., Bergner, J. B., Cleeves, L. I., Kurtovic, N. T., Ménard, F., Nomura, H., Pérez, L. M., Qi, C., Schwarz, K. R., Tsukagoshi, T., Waggoner, A. R., Wilner, D. J., Zhang, K. 2021, The Astrophysical Journal Supplement Series **Molecules with ALMA at Planet-forming Scales (MAPS). II. CLEAN Strategies for Synthesizing Images of Molecular Line Emission in Protoplanetary Disks**

Farnocchia, D., Chesley, S. R., Takahashi, Y., Rozitis, B., Vokrouhlický, D., Rush, B. P., Mastrodemos, N., Kennedy, B. M., Park, R. S., Bellerose, J., Lubey, D. P., Velez, D., Davis, A. B., Emery, J. P., Leonard, J. M., Geeraert, J., Antreasian, P. G., Lauretta, D. S. 2021, Icarus **Ephemeris and hazard assessment for near-Earth asteroid (101955) Bennu based on OSIRIS-REx data**

Ferrone, S. M., Clark, B. E., Kaplan, H. H., Rizos, J.-L., Zou, X.-D., Li, J.-Y., Barucci, M. A., Simon, A. A., Reuter, D., Hasselmann, P. H., Deshapriya, J. D. P., Poggiali, G., Brucato, J. R., Cambioni, S., Cloutis, E., Hamilton, V. E., Lauretta, D. S. 2021, Icarus **Visible-near-infrared observations of organics and carbonates on (101955) Bennu: Classification method and search for surface context**

Giacalone, J., Burgess, D., Bale, S. D., Desai, M. I., Mitchell, J. G., Lario, D., Chen, C. H. K., Christian, E. R., de Nolfo, G. A., Hill, M. E., Matthaeus, W. H., McComas, D. J., McNutt, R. L., Mitchell, D. G., Roelof, E. C., Schwadron, N. A., Getachew, T., Joyce, C. J. 2021, The Astrophysical Journal **Energetic Particles Associated with a Coronal Mass Ejection Shock Interacting with a Convected Magnetic Structure**

Guzmán, V. V., Bergner, J. B., Law, C. J., Öberg, K. I., Walsh, C., Cataldi, G., Aikawa, Y., Bergin, E. A., Czekala, I., Huang, J., Andrews, S. M., Loomis, R. A., Zhang, K., Le Gal, R., Alarcón, F., Ilee, J. D., Teague, R., Cleeves, L. I., Wilner, D. J., Long, F., Schwarz, K. R., Bosman, A. D., Pérez, L. M., Ménard, F., Liu, Y. 2021, The Astrophysical Journal Supplement Series **Molecules with ALMA at Planet-forming Scales (MAPS). VI. Distribution of the Small Organics HCN, C<sub>2</sub>H, and H<sub>2</sub>CO**

Huang, J., Bergin, E. A., Öberg, K. I., Andrews, S. M., Teague, R., Law, C. J., Kalas, P., Aikawa, Y., Bae, J., Bergner, J. B., Booth, A. S., Bosman, A. D., Calahan, J. K., Cataldi, G., Cleeves, L. I., Czekala, I., Ilee, J. D., Le Gal,

R., Guzmán, V. V., Long, F., Loomis, R. A., Ménard, F., Nomura, H., Qi, C., Schwarz, K. R., Tsukagoshi, T., van't Hoff, M. L. R., Walsh, C., Wilner, D. J., Yamato, Y., Zhang, K. 2021, The Astrophysical Journal Supplement Series **Molecules with ALMA at Planet-forming Scales (MAPS). XIX. Spiral Arms, a Tail, and Diffuse Structures Traced by CO around the GM Aur Disk**

Ilee, J. D., Walsh, C., Booth, A. S., Aikawa, Y., Andrews, S. M., Bae, J., Bergin, E. A., Bergner, J. B., Bosman, A. D., Cataldi, G., Cleeves, L. I., Czekala, I., Guzmán, V. V., Huang, J., Law, C. J., Le Gal, R., Loomis, R. A., Ménard, F., Nomura, H., Öberg, K. I., Qi, C., Schwarz, K. R., Teague, R., Tsukagoshi, T., Wilner, D. J., Yamato, Y., Zhang, K. 2021, The Astrophysical Journal Supplement Series **Molecules with ALMA at Planet-forming Scales (MAPS). IX. Distribution and Properties of the Large Organic Molecules HC<sub>3</sub>N, CH<sub>3</sub>CN, and c-C<sub>3</sub>H<sub>2</sub>**

Law, C. J., Loomis, R. A., Teague, R., Öberg, K. I., Czekala, I., Andrews, S. M., Huang, J., Aikawa, Y., Alarcón, F., Bae, J., Bergin, E. A., Bergner, J. B., Boehler, Y., Booth, A. S., Bosman, A. D., Calahan, J. K., Cataldi, G., Cleeves, L. I., Furuya, K., Guzmán, V. V., Ilee, J. D., Le Gal, R., Liu, Y., Long, F., Ménard, F., Nomura, H., Qi, C., Schwarz, K. R., Sierra, A., Tsukagoshi, T., Yamato, Y., van't Hoff, M. L. R., Walsh, C., Wilner, D. J., Zhang, K. 2021, The Astrophysical Journal Supplement Series **Molecules with ALMA at Planet-forming Scales (MAPS). III. Characteristics of Radial Chemical Substructures**

Law, C. J., Teague, R., Loomis, R. A., Bae, J., Öberg, K. I., Czekala, I., Andrews, S. M., Aikawa, Y., Alarcón, F., Bergin, E. A., Bergner, J. B., Booth, A. S., Bosman, A. D., Calahan, J. K., Cataldi, G., Cleeves, L. I., Furuya, K., Guzmán, V. V., Huang, J., Ilee, J. D., Le Gal, R., Liu, Y., Long, F., Ménard, F., Nomura, H., Pérez, L. M., Qi, C., Schwarz, K. R., Soto, D., Tsukagoshi, T., Yamato, Y., van't Hoff, M. L. R., Walsh, C., Wilner, D. J., Zhang, K. 2021, The Astrophysical Journal Supplement Series **Molecules with ALMA at Planet-forming Scales (MAPS). IV. Emission Surfaces and Vertical Distribution of Molecules**

Le Gal, R., Öberg, K. I., Teague, R., Loomis, R. A., Law, C. J., Walsh, C., Bergin, E. A., Ménard, F., Wilner, D. J., Andrews, S. M., Aikawa, Y., Booth, A. S., Cataldi, G., Bergner, J. B., Bosman, A. D., Cleeves, L. I., Czekala, I., Furuya, K., Guzmán, V. V., Huang, J., Ilee, J. D., Nomura, H., Qi, C., Schwarz, K. R., Tsukagoshi, T., Yamato, Y., Zhang, K. 2021, The Astrophysical Journal Supplement Series **Molecules with ALMA at Planet-forming Scales (MAPS). XII. Inferring the C/O and S/H Ratios in Protoplanetary Disks with Sulfur Molecules**

Lev, E., Hamilton, C. W., Voigt, J. R. C., Stadermann, A. C., Zhan, Y., Neish, C. D. 2021, Icarus **Emplacement conditions of lunar impact melt flows**

Manjavacas, E., Karalidi, T., Vos, J. M., Biller, B. A., Lew, B. W. P. 2021, The Astronomical Journal **Revealing the Vertical Cloud Structure of a Young Low-mass Brown Dwarf, an Analog to the  $\beta$ -Pictoris b Directly Imaged Exoplanet, through Keck I/MOSFIRE Spectrophotometric Variability**

Öberg, K. I., Guzmán, V. V., Walsh, C., Aikawa, Y., Bergin, E. A., Law, C. J., Loomis, R. A., Alarcón, F., Andrews, S. M., Bae, J., Bergner, J. B., Boehler, Y., Booth, A. S., Bosman, A. D., Calahan, J. K., Cataldi, G., Cleeves, L. I., Czekala, I., Furuya, K., Huang, J., Ilee, J. D., Kurtovic, N. T., Le Gal, R., Liu, Y., Long, F., Ménard, F., Nomura, H., Pérez, L. M., Qi, C., Schwarz, K. R., Sierra, A., Teague, R., Tsukagoshi, T., Yamato, Y., van't Hoff, M. L. R., Waggoner, A. R., Wilner, D. J., Zhang, K. 2021, The Astrophysical Journal Supplement Series **Molecules with ALMA at Planet-forming Scales (MAPS). I. Program Overview and Highlights**

Schwarz, K. R., Calahan, J. K., Zhang, K., Alarcón, F., Aikawa, Y., Andrews, S. M., Bae, J., Bergin, E. A., Booth, A. S., Bosman, A. D., Cataldi, G., Cleeves, L. I., Czekala, I., Huang, J., Ilee, J. D., Law, C. J., Le Gal, R., Liu, Y., Long, F., Loomis, R. A., Macías, E., McClure, M., Ménard, F., Öberg, K. I., Teague, R., van Dishoeck, E., Walsh, C., Wilner, D. J. 2021, The Astrophysical Journal Supplement Series **Molecules with ALMA at Planet-forming Scales. XX. The Massive Disk around GM Aurigae**

Singhal, A., Bhalerao, V., Mahabal, A. A., Vaghmare, K., Jagade, S., Kulkarni, S., Vibhute, A., Kembhavi, A. K., Drake, A. J., Djorgovski, S. G., Graham, M. J., Donalek, C., Christensen, E., Larson, S., Beshore, E. C. 2021, Monthly Notices of the Royal Astronomical Society **Deep co-added sky from Catalina Sky Survey images**

Sugimoto, C., Tatsumi, E., Cho, Y., Morota, T., Honda, R., Kameda, S., Yokota, Y., Yumoto, K., Aoki, M., DellaGiustina, D. N., Michikami, T., Hiroi, T., Domingue, D. L., Michel, P., Schröder, S. E., Nakamura, T., Yamada, M., Sakatani, N., Kouyama, T., Honda, C., Hayakawa, M., Matsuoka, M., Suzuki, H., Yoshioka, K., Ogawa, K., Sawada, H., Arakawa, M., Saiki, T., Imamura, H., Takagi, Y., Yano, H., Shirai, K., Okamoto, C., Tsuda, Y., Nakazawa, S., Iijima, Y., Sugita, S. 2021, Icarus **High-resolution observations of bright boulders on asteroid Ryugu: 1. Size frequency distribution and morphology**

Sugimoto, C., Tatsumi, E., Cho, Y., Morota, T., Honda, R., Kameda, S., Yokota, Y., Yumoto, K., Aoki, M., DellaGiustina, D. N., Michikami, T., Hiroi, T., Domingue, D. L., Michel, P., Schröder, S. E., Nakamura, T., Yamada, M., Sakatani, N., Kouyama, T., Honda, C., Hayakawa, M., Matsuoka, M., Suzuki, H., Yoshioka, K.,

Ogawa, K., Sawada, H., Arakawa, M., Saiki, T., Imamura, H., Takagi, Y., Yano, H., Shirai, K., Okamoto, C., Tsuda, Y., Nakazawa, S., Iijima, Y., Sugita, S. 2021, *Icarus* **High-resolution observations of bright boulders on asteroid Ryugu: 2. Spectral properties**

Tang, S.-Y., Robinson, T. D., Marley, M. S., Batalha, N. E., Lupu, R., Prato, L. 2021, *The Astrophysical Journal* **Impact of Water-latent Heat on the Thermal Structure of Ultra-cool Objects: Brown Dwarfs and Free-floating Planets**

Teague, R., Bae, J., Aikawa, Y., Andrews, S. M., Bergin, E. A., Bergner, J. B., Boehler, Y., Booth, A. S., Bosman, A. D., Cataldi, G., Czekala, I., Guzmán, V. V., Huang, J., Ilee, J. D., Law, C. J., Le Gal, R., Long, F., Loomis, R. A., Ménard, F., Öberg, K. I., Pérez, L. M., Schwarz, K. R., Sierra, A., Walsh, C., Wilner, D. J., Yamato, Y., Zhang, K. 2021, *The Astrophysical Journal Supplement Series* **Molecules with ALMA at Planet-forming Scales (MAPS). XVIII. Kinematic Substructures in the Disks of HD 163296 and MWC 480**

Voigt, J. R. C., Hamilton, C. W., Scheidt, S. P., Münzer, U., Höskuldsson, Á., Jónsdóttir, I., Thordarson, T. 2021, *Journal of Volcanology and Geothermal Research* **Geomorphological characterization of the 2014-2015 Holuhraun lava flow-field in Iceland**

Zegmott, T. J., Lowry, S. C., Rošek, A., Rozitis, B., Nolan, M. C., Howell, E. S., Green, S. F., Snodgrass, C., Fitzsimmons, A., Weissman, P. R. 2021, *Monthly Notices of the Royal Astronomical Society* **Detection of the YORP effect on the contact binary (68346) 2001 KZ66 from combined radar and optical observations**

Zhang, K., Booth, A. S., Law, C. J., Bosman, A. D., Schwarz, K. R., Bergin, E. A., Öberg, K. I., Andrews, S. M., Guzmán, V. V., Walsh, C., Qi, C., van't Hoff, M. L. R., Long, F., Wilner, D. J., Huang, J., Czekala, I., Ilee, J. D., Cataldi, G., Bergner, J. B., Aikawa, Y., Teague, R., Bae, J., Loomis, R. A., Calahan, J. K., Alarcón, F., Ménard, F., Le Gal, R., Sierra, A., Yamato, Y., Nomura, H., Tsukagoshi, T., Pérez, L. M., Trapman, L., Liu, Y., Furuya, K. 2021, *The Astrophysical Journal Supplement Series* **Molecules with ALMA at Planet-forming Scales (MAPS). V. CO Gas Distributions**

October 2021

21 publications

Alexandersen, M., Greenstreet, S., Gladman, B. J., Bannister, M. T., Chen, Y.-T., Gwyn, S. D. J., Kavelaars, J., Petit, J.-M., Volk, K., Lehner, M. J., Wang, S.-Y. 2021, The Planetary Science Journal **OSSOS. XXIII. 2013 VZ 70 and the Temporary Coorbitals of the Giant Planets**

Asphaug, E., Emsenhuber, A., Cambioni, S., Gabriel, T. S. J., Schwartz, S. R. 2021, The Planetary Science Journal **Collision Chains among the Terrestrial Planets. III. Formation of the Moon**

Becerra, P., Smith, I. B., Hibbard, S., Andres, C., Bapst, J., Bramson, A. M., Buhler, P. B., Coronato, A., Diniega, S., Emmett, J., Grau Galofre, A., Hery, C., Kahre, M., Paul Knightly, J., Nerozzi, S., Pascuzzo, A., Portyankina, G., Rabassa, J., Tamppari, L. K., Titus, T. N., Whitten, J., Yoldi, Z. 2021, The Planetary Science Journal **Past, Present, and Future of Mars Polar Science: Outcomes and Outlook from the 7th International Conference on Mars Polar Science and Exploration**

Buie, M. W., Keeney, B. A., Strauss, R. H., Blank, T. E., Moore, J. G., Porter, S. B., Wasserman, L. H., Weryk, R. J., Levison, H. F., Olkin, C. B., Leiva, R., Bardecker, J. E., Brown, M. E., Brown, L. B., Collins, M. P., Davidson, H. M., Dunham, D. W., Dunham, J. B., Eaccarino, J. A., Finley, T. J., Fuller, L., Garcia, M. L., George, T., Getrost, K., Gialluca, M., Givot, R. M., Gupton, D., Hanna, W. H., Hergenrother, C. W., Hernandez, Y., Hill, B., Hinton, P. C., Holt, T. R., Howell, R. R., Jewell, J. L., Kamin, R. L., Kammer, J. A., Kareta, T., Kayl, G. J., Keller, J. M., Kenyon, D. A., Kester, S. R., Kidd, J. N., Lauer, T. R., Leung, C. W. S., Lorusso, Z. R., Lundgren, C. B., Magana, L. O., Maley, P. D., Marchis, F., Marcialis, R. L., McCandless, A. E., McCrystal, D. J., McGraw, A. M., Miller, K. E., Mueller, B. E. A., Noonan, J. W., Olsen, A. M., Patton, A. R., O'Conner Peluso, D., Person, M. J., Rigby, J. G., Rolfsmeier, A. D., Salmon, J. J., Samaniego, J., Sawyer, R. P., Schulz, D. M., Skrutskie, M. F., Smith, R. J. C., Spencer, J. R., Springmann, A., Stanbridge, D. R., Stoffel, T. J., Tamblyn, P., Tobias, B., Verbiscer, A. J., von Schalscha, M. P., Werts, H., Zhang, Q. 2021, The Planetary Science Journal **Size and Shape of (11351) Leucus from Five Occultations**

Cambioni, S., Delbo, M., Poggiali, G., Avdellidou, C., Ryan, A. J., Deshapriya, J. D. P., Asphaug, E., Ballouz, R.-L., Barucci, M. A., Bennett, C. A., Bottke, W. F., Brucato, J. R., Burke, K. N., Cloutis, E., DellaGiustina, D. N., Emery, J. P., Rozitis, B., Walsh, K. J., Lauretta, D. S. 2021, Nature **Fine-regolith production on asteroids controlled by rock porosity**

Cushing, M. C., Schneider, A. C., Kirkpatrick, J. D., Morley, C. V., Marley, M. S., Gelino, C. R., Mace, G. N., Wright, E. L., Eisenhardt, P. R., Skrutskie, M. F., Marsh, K. A. 2021, The Astrophysical Journal **An Improved Near-infrared Spectrum of the Archetype Y Dwarf WISEP J182831.08+265037.8**



Emsenhuber, A., Asphaug, E., Cambioni, S., Gabriel, T. S. J., Schwartz, S. R. 2021, The Planetary Science Journal **Collision Chains among the Terrestrial Planets. II. An Asymmetry between Earth and Venus**

Johnson, P. E., Keane, J. T., Young, L. A., Matsuyama, I. 2021, The Planetary Science Journal **New Constraints on Pluto's Sputnik Planitia Ice Sheet from a Coupled Reorientation-Climate Model**

Kareta, T., Reddy, V., Pearson, N., Sanchez, J. A., Harris, W. M. 2021, The Planetary Science Journal **Investigating the Relationship between (3200) Phaethon and (155140) 2005 UD through Telescopic and Laboratory Studies**

Kavelaars, J. J., Petit, J.-M., Gladman, B., Bannister, M. T., Alexandersen, M., Chen, Y.-T., Gwyn, S. D. J., Volk, K. 2021, The Astrophysical Journal **OSSOS Finds an Exponential Cutoff in the Size Distribution of the Cold Classical Kuiper Belt**

Lario, D., Richardson, I. G., Palmerio, E., Lugaz, N., Bale, S. D., Stevens, M. L., Cohen, C. M. S., Giacalone, J., Mitchell, D. G., Szabo, A., Nieves-Chinchilla, T., Wilson, L. B., Christian, E. R., Hill, M. E., McComas, D. J., McNutt, R. L., Schwadron, N. A., Wiedenbeck, M. E. 2021, The Astrophysical Journal **Comparative Analysis of the 2020 November 29 Solar Energetic Particle Event Observed by Parker Solar Probe**

Maksimovic, M., Bale, S. D., Chust, T., Khotyaintsev, Y., Krasnoselskikh, V., Kretzschmar, M., Plettemeier, D., Rucker, H. O., Souček, J., Steller, M., Štverák, Š., Trávníček, P., Vaivads, A., Chaintreuil, S., Dekkali, M., Alexandrova, O., Astier, P.-A., Barbary, G., Bérard, D., Bonnin, X., Boughedada, K., Cecconi, B., Chapron, F., Chariet, M., Collin, C., de Conchy, Y., Dias, D., Guéguen, L., Lamy, L., Leray, V., Lion, S., Malac-Allain, L. R., Matteini, L., Nguyen, Q. N., Pantellini, F., Parisot, J., Plasson, P., Thijs, S., Vecchio, A., Fratter, I., Bellouard, E., Lorfèvre, E., Danto, P., Julien, S., Guilhem, E., Fiachetti, C., Sanisidro, J., Laffaye, C., Gonzalez, F., Pontet, B., Quéruel, N., Jannet, G., Fergeau, P., Brochot, J.-Y., Cassam-Chenai, G., Dudok de Wit, T., Timofeeva, M., Vincent, T., Agrapart, C., Delory, G. T., Turin, P., Jeandet, A., Leroy, P., Pellion, J.-C., Bouzid, V., Katra, B., Piberne, R., Recart, W., Santolík, O., Kolmašová, I., Krupa, V., Krupa, O., Píša, D., Uhlíř, L., Lán, R., Baše, J., Ahlèn, L., André, M., Bylander, L., Cripps, V., Cully, C., Eriksson, A., Jansson, S.-E., Johansson, E. P. G., Karlsson, T., Puccio, W., Břínek, J., Öttacher, H., Panchenko, M., Berthomier, M., Goetz, K., Hellinger, P., Horbury, T. S., Issautier, K., Kontar, E., Krucker, S., Le Contel, O., Louarn, P., Martinović, M., Owen, C. J., Retino, A., Rodríguez-Pacheco, J., Sahraoui, F., Wimmer-Schweingruber, R. F., Zaslavsky, A., Zouganelis, I. 2021,

Astronomy and Astrophysics **The Solar Orbiter Radio and Plasma Waves (RPW) instrument (Corrigendum)**

Marley, M. S., Saumon, D., Visscher, C., Lupu, R., Freedman, R., Morley, C., Fortney, J. J., Seay, C., Smith, A. J. R. W., Teal, D. J., Wang, R. 2021, The Astrophysical Journal **The Sonora Brown Dwarf Atmosphere and Evolution Models. I. Model Description and Application to Cloudless Atmospheres in Rainout Chemical Equilibrium**

May, E. M., Komacek, T. D., Stevenson, K. B., Kempton, E. M.-R., Bean, J. L., Malik, M., Ih, J., Mansfield, M., Savel, A. B., Deming, D., Desert, J.-M., Feng, Y. K., Fortney, J. J., Kataria, T., Lewis, N., Morley, C., Rauscher, E., Showman, A. 2021, The Astronomical Journal **Spitzer Phase-curve Observations and Circulation Models of the Inflated Ultrahot Jupiter WASP-76b**

Mitchell, J. G., De Nolfo, G. A., Hill, M. E., Christian, E. R., Richardson, I. G., McComas, D. J., McNutt, R. L., Mitchell, D. G., Schwadron, N. A., Bale, S. D., Giacalone, J., Joyce, C. J., Niehof, J. T., Szalay, J. R. 2021, The Astrophysical Journal **Energetic Electron Observations by Parker Solar Probe/IS<sup>IS</sup> during the First Widespread SEP Event of Solar Cycle 25 on 2020 November 29**

Mulders, G. D., Dr̄kowska, J., van der Marel, N., Ciesla, F. J., Pascucci, I. 2021, The Astrophysical Journal **Why Do M Dwarfs Have More Transiting Planets?**

Mulders, G. D., Pascucci, I., Ciesla, F. J., Fernandes, R. B. 2021, The Astrophysical Journal **The Mass Budgets and Spatial Scales of Exoplanet Systems and Protoplanetary Disks**

Neugebauer, M., Sterling, A. C. 2021, The Astrophysical Journal **Relation of Microstreams in the Polar Solar Wind to Switchbacks and Coronal X-Ray Jets**

Sanchez, J. A., Reddy, V., Bottke, W. F., Battle, A., Sharkey, B., Kareta, T., Pearson, N., Cantillo, D. C. 2021, The Planetary Science Journal **Physical Characterization of Metal-rich Near-Earth Asteroids 6178 (1986 DA) and 2016 ED85**

Suárez, G., Metchev, S., Leggett, S. K., Saumon, D., Marley, M. S. 2021, The Astrophysical Journal **Ultracool Dwarfs Observed with the Spitzer Infrared Spectrograph. I. An Accurate Look at the L-to-T Transition at 300 Myr from Optical Through Mid-infrared Spectrophotometry**

Wang, J. J., Ruffio, J.-B., Morris, E., Delorme, J.-R., Jovanovic, N., Pezzato, J., Echeverri, D., Finnerty, L., Hood, C., Zanazzi, J. J., Bryan, M. L., Bond, C. Z., Cetre, S., Martin, E. C., Mawet, D., Skemer, A., Baker, A., Xuan, J. W., Wallace, J. K., Wang, J., Bartos, R., Blake, G. A., Boden, A., Buzard, C., Calvin, B., Chun, M., Doppmann, G.,

Dupuy, T. J., Duchêne, G., Feng, Y. K., Fitzgerald, M. P., Fortney, J., Freedman, R. S., Knutson, H., Konopacky, Q., Lilley, S., Liu, M. C., Lopez, R., Lupu, R., Marley, M. S., Meshkat, T., Miles, B., Millar-Blanchaer, M., Ragland, S., Roy, A., Ruane, G., Sappéy, B., Schofield, T., Weiss, L., Wetherell, E., Wizinowich, P., Ygouf, M. 2021, The Astronomical Journal **Detection and Bulk Properties of the HR 8799 Planets with High-resolution Spectroscopy**

## September 2021

20 publications

Broeren, T., Klein, K. G., TenBarge, J. M., Dors, I., Roberts, O. W., Verscharen, D. 2021, Frontiers in Astronomy and Space Sciences **Magnetic Field Reconstruction for a Realistic Multi-Point, Multi-Scale Spacecraft Observatory**

Burningham, B., Faherty, J. K., Gonzales, E. C., Marley, M. S., Visscher, C., Lupu, R., Gaarn, J., Fabienne Bieger, M., Freedman, R., Saumon, D. 2021, Monthly Notices of the Royal Astronomical Society **Cloud busting: enstatite and quartz clouds in the atmosphere of 2M2224-0158**

Fossati, L., Young, M. E., Shulyak, D., Koskinen, T., Huang, C., Cubillos, P. E., France, K., Sreejith, A. G. 2021, Astronomy and Astrophysics **Non-local thermodynamic equilibrium effects determine the upper atmospheric temperature structure of the ultra-hot Jupiter KELT-9b**

Ganesh, I., McGuire, L. A., Carter, L. M. 2021, Journal of Geophysical Research (Planets) **Modeling the Dynamics of Dense Pyroclastic Flows on Venus: Insights Into Pyroclastic Eruptions**

Gharib-Nezhad, E., Marley, M. S., Batalha, N. E., Visscher, C., Freedman, R. S., Lupu, R. E. 2021, The Astrophysical Journal **Following the Lithium: Tracing Li-bearing Molecules across Age, Mass, and Gravity in Brown Dwarfs**

Horvath, D. G., Moitra, P., Hamilton, C. W., Craddock, R. A., Andrews-Hanna, J. C. 2021, Icarus **Evidence for geologically recent explosive volcanism in Elysium Planitia, Mars**

Jenniskens, P., Lauretta, D. S., Towner, M. C., Heathcote, S., Jehin, E., Hanke, T., Cooper, T., Baggaley, J. W., Howell, J. A., Johannink, C., Breukers, M., Odeh, M., Moskovitz, N., Juneau, L., Beck, T., De Cicco, M., Samuels, D., Rau, S., Albers, J., Gural, P. S. 2021, Icarus **Meteor showers from known long-period comets**

Kaplan, H. H., Simon, A. A., Hamilton, V. E., Thompson, M. S., Sandford, S. A., Barucci, M. A., Cloutis, E. A.,

Brucato, J., Reuter, D. C., Glavin, D. P., Clark, B. E., Dworkin, J. P., Campins, H., Emery, J. P., Fornasier, S., Zou, X. D., Lauretta, D. S. 2021, Astronomy and Astrophysics **Composition of organics on asteroid (101955) Bennu**

King, G. W., Corrales, L., Wheatley, P. J., Lavvas, P., Steinrueck, M. E., Bourrier, V., Ehrenreich, D., Lecavelier des Etangs, A., Louden, T. 2021, Monthly Notices of the Royal Astronomical Society **The near-UV transit of HD 189733b with the XMM-Newton optical monitor**

Melikyan, R. E., Clark, B. E., Hergenrother, C. W., Chesley, S. R., Nolan, M. C., Ye, Q.-Z., Lauretta, D. S. 2021, Journal of Geophysical Research (Planets) **Bennu's Natural Sample Delivery Mechanism: Estimating the Flux of Bennuid Meteors at Earth**

Mills, M. M., McEwen, A. S., Okubo, C. H. 2021, Geophysical Research Letters **A Preliminary Regional Geomorphologic Map in Utopia Planitia of the Tianwen-1 Zhurong Landing Region**

Pecora, F., Servidio, S., Greco, A., Matthaeus, W. H., McComas, D. J., Giacalone, J., Joyce, C. J., Getachew, T., Cohen, C. M. S., Leske, R. A., Wiedenbeck, M. E., McNutt, R. L., Hill, M. E., Mitchell, D. G., Christian, E. R., Roelof, E. C., Schwadron, N. A., Bale, S. D. 2021, Monthly Notices of the Royal Astronomical Society **Parker solar probe observations of helical structures as boundaries for energetic particles**

Pikhartova, M., Long, Z. C., Assani, K. D., Fernandes, R. B., Bayyari, A., Sitko, M. L., Grady, C. A., Wisniewski, J. P., Rich, E. A., Henden, A. A., Danchi, W. C. 2021, The Astrophysical Journal **Variability of Disk Emission in Pre-main Sequence and Related Stars. V. Occultation Events from the Innermost Disk Region of the Herbig Ae Star HD 163296**

Rieke, G. H., Su, K. Y. L., Melis, C., Gáspár, A. 2021, The Astrophysical Journal **Extreme Variability of the V488 Persei Debris Disk**

Roberts, J. H., Barnouin, O. S., Daly, M. G., Walsh, K. J., Nolan, M. C., Daly, R. T., Michel, P., Zhang, Y., Perry, M. E., Neumann, G. A., Seabrook, J. A., Gaskell, R. W., Palmer, E. E., Weirich, J. R., Watanabe, S., Hirata, N., Hirata, N., Sugita, S., Scheeres, D. J., McMahon, J. W., Lauretta, D. S. 2021, Planetary and Space Science **Rotational states and shapes of Ryugu and Bennu: Implications for interior structure and strength**

Rowe-Gurney, N., Fletcher, L. N., Orton, G. S., Roman, M. T., Mainzer, A., Moses, J. I., de Pater, I., Irwin, P. G. J. 2021, Icarus **Longitudinal variations in the stratosphere of Uranus from the Spitzer infrared spectrometer**

Schenk, P., Beddingfield, C., Bertrand, T., Bierson, C., Beyer, R., Bray, V., Cruikshank, D., Grundy, W., Hansen,

C., Hofgartner, J., Martin, E., McKinnon, W., Moore, J., Robbins, S., Runyon, K., Singer, K., Spencer, J., Stern, S., Stryk, T. 2021, Remote Sensing **Triton: Topography and Geology of a Probable Ocean World with Comparison to Pluto and Charon**

Tatsumi, E., Popescu, M., Campins, H., de León, J., García, J. L. R., Licandro, J., Simon, A. A., Kaplan, H. H., DellaGiustina, D. N., Golish, D. R., Lauretta, D. S. 2021, Monthly Notices of the Royal Astronomical Society **Widely distributed exogenic materials of varying compositions and morphologies on asteroid (101955) Bennu**

Wells, R. D., Rackham, B. V., Schanche, N., Petrucci, R., Gómez Maqueo Chew, Y., Demory, B.-O., Burgasser, A. J., Burn, R., Pozuelos, F. J., Günther, M. N., Sabin, L., Schroffenegger, U., Gómez-Muñoz, M. A., Stassun, K. G., Van Grootel, V., Howell, S. B., Sebastian, D., Triaud, A. H. M. J., Apai, D., Plauchu-Frayn, I., Guerrero, C. A., Guillén, P. F., Landa, A., Melgoza, G., Montalvo, F., Serrano, H., Riesgo, H., Barkaoui, K., Bixel, A., Burdanov, A., Chen, W. P., Chinchilla, P., Collins, K. A., Daylan, T., de Wit, J., Delrez, L., Dévora-Pajares, M., Dietrich, J., Dransfield, G., Ducrot, E., Fausnaugh, M., Furlan, E., Gabor, P., Gan, T., Garcia, L., Ghachoui, M., Giacalone, S., Gibbs, A. B., Gillon, M., Gnilka, C., Gore, R., Guerrero, N., Henning, T., Hesse, K., Jehin, E., Jenkins, J. M., Latham, D. W., Lester, K., McCormac, J., Murray, C. A., Niraula, P., Pedersen, P. P., Queloz, D., Ricker, G., Rodriguez, D. R., Schroeder, A., Schwarz, R. P., Scott, N., Seager, S., Theissen, C. A., Thompson, S., Timmermans, M., Twicken, J. D., Winn, J. N. 2021, Astronomy and Astrophysics **A large sub-Neptune transiting the thick-disk M4 V TOI-2406**

Zegmott, T. J., Lowry, S. C., Rošek, A., Rozitis, B., Nolan, M. C., Howell, E. S., Green, S. F., Snodgrass, C., Fitzsimmons, A., Weissman, P. R. 2021, Monthly Notices of the Royal Astronomical Society **Detection of the YORP Effect on the contact-binary (68346) 2001 KZ66 from combined radar and optical observations**

August 2021

22 publications

Ballouz, R.-L., Walsh, K. J., Sánchez, P., Holsapple, K. A., Michel, P., Scheeres, D. J., Zhang, Y., Richardson, D. C., Barnouin, O. S., Nolan, M. C., Bierhaus, E. B., Connolly, H. C., Schwartz, S. R., Çelik, O., Mitsuhashi, B., Lauretta, D. S. 2021, Monthly Notices of the Royal Astronomical Society **Modified granular impact force laws for the OSIRIS-REx touchdown on the surface of asteroid (101955) Bennu**

Barnes, J. W., Turtle, E. P., Trainer, M. G., Lorenz, R. D., MacKenzie, S. M., Brinckerhoff, W. B., Cable, M. L., Ernst, C. M., Freissinet, C., Hand, K. P., Hayes, A. G., Hörst, S. M., Johnson, J. R., Karkoschka, E., Lawrence, D. J., Le Gall, A., Lora, J. M., McKay, C. P., Miller, R. S., Murchie, S. L., Neish, C. D., Newman, C. E., Núñez, J., Panning, M. P., Parsons, A. M., Peplowski, P. N., Quick, L. C., Radebaugh, J., Rafkin, S. C. R., Shiraishi, H., Soderblom, J. M., Sotzen, K. S., Stickle, A. M., Stofan, E. R., Szopa, C., Tokano, T., Wagner, T., Wilson, C., Yingst, R. A., Zacny, K., Stähler, S. C. 2021, The Planetary Science Journal **Science Goals and Objectives for the Dragonfly Titan Rotorcraft Relocatable Lander**

Broquet, A., Wieczorek, M. A., Fa, W. 2021, Journal of Geophysical Research (Planets) **The Composition of the South Polar Cap of Mars Derived From Orbital Data**

Cable, M. L., Porco, C., Glein, C. R., German, C. R., MacKenzie, S. M., Neveu, M., Hoehler, T. M., Hofmann, A. E., Hendrix, A. R., Eigenbrode, J., Postberg, F., Spilker, L. J., McEwen, A., Khawaja, N., Hunter Waite, J., Wurz, P., Helbert, J., Anbar, A., de Vera, J.-P., Núñez, J. 2021, The Planetary Science Journal **The Science Case for a Return to Enceladus**

Chaffin, M. S., Kass, D. M., Aoki, S., Fedorova, A. A., Deighan, J., Connour, K., Heavens, N. G., Kleinböhl, A., Jain, S. K., Chaufray, J.-Y., Mayyasi, M., Clarke, J. T., Stewart, A. I. F., Evans, J. S., Stevens, M. H., McClintock, W. E., Crismani, M. M. J., Holsclaw, G. M., Lefevre, F., Lo, D. Y., Montmessin, F., Schneider, N. M., Jakosky, B., Villanueva, G., Liuzzi, G., Daerden, F., Thomas, I. R., Lopez-Moreno, J.-J., Patel, M. R., Bellucci, G., Ristic, B., Erwin, J. T., Vandaele, A. C., Trokhimovskiy, A., Korablev, O. I. 2021, Nature Astronomy **Martian water loss to space enhanced by regional dust storms**

Cohen, B. A., Young, K. E., Zellner, N. E. B., Zacny, K., Yingst, R. A., Watkins, R. N., Warwick, R., Valencia, S. N., Swindle, T. D., Robbins, S. J., Petro, N. E., Nicoletti, A., Moriarty, D. P., Lynch, R., Indyk, S. J., Gross, J., Grier, J. A., Grant, J. A., Ginyard, A., Fassett, C. I., Farley, K. A., Farcy, B. J., Ehlmann, B. L., Dyar, M. D., Daelemans, G., Curran, N. M., van der Bogert, C. H., Arevalo, R. D., Scott Anderson, F. 2021, The Planetary Science Journal **In Situ Geochronology for the Next Decade: Mission Designs for the Moon, Mars, and Vesta**

Dundas, C. M., Becerra, P., Byrne, S., Chojnacki, M., Daubar, I. J., Diniega, S., Hansen, C. J., Herkenhoff, K. E.,

Landis, M. E., McEwen, A. S., Portyankina, G., Valantinas, A. 2021, Journal of Geophysical Research (Planets)

**Active Mars: A Dynamic World**

Fink, U., Harris, W., Doose, L., Volk, K., Woodney, L., Farnham, T., Womack, M. 2021, The Planetary Science

Journal **Dust Outburst Dynamics and Hazard Assessment for Close Spacecraft-Comet Encounters**

Golish, D. R., Li, J.-Y., Clark, B. E., DellaGiustina, D. N., Zou, X.-D., Rizos, J. L., Hasselmann, P. H., Bennett, C. A.,

Fornasier, S., Drouet d'Aubigny, C., Rizk, B., Daly, M. G., Barnouin, O. S., Seabrook, J. A., Philpott, L., Al Asad,

M. M., Johnson, C. L., Rozitis, B., Ryan, A. J., Emery, J. P., Lauretta, D. S. 2021, The Planetary Science Journal

**Regional Photometric Modeling of Asteroid (101955) Bennu**

Horvath, D. G., Andrews-Hanna, J. C. 2021, Earth and Planetary Science Letters **The hydrology and**

**climate of Mars during the sedimentary infilling of Gale crater**

Houllé, M., Vigan, A., Carlotti, A., Choquet, É., Cantalloube, F., Phillips, M. W., Sauvage, J.-F., Schwartz, N.,

Otten, G. P. P. L., Baraffe, I., Emsenhuber, A., Mordasini, C. 2021, Astronomy and Astrophysics

**Direct imaging and spectroscopy of exoplanets with the ELT/HARMONI high-contrast module**

Komacek, T. D., Showman, A. P., Parmentier, V. 2021, The Astrophysical Journal **Erratum: "Vertical**

**Tracer Mixing in Hot Jupiter Atmospheres" (2019, ApJ, 881, 152)**

Komacek, T. D., Showman, A. P., Tan, X. 2021, The Astrophysical Journal **Erratum: "Atmospheric**

**Circulation of Hot Jupiters: Dayside-Nightside Temperature Differences. II. Comparison with Observations" (2017, ApJ, 835, 198)**

Masiero, J. R., Mainzer, A. K., Bauer, J. M., Cutri, R. M., Grav, T., Kramer, E., Pittichová, J., Wright, E. L. 2021,

The Planetary Science Journal **Asteroid Diameters and Albedos from NEOWISE Reactivation**

**Mission Years Six and Seven**

Melikyan, R. E., Clark, B. E., Hergenrother, C. W., Chesley, S. R., Nolan, M. C., Ye, Q.-Z., Lauretta, D. S. 2021,

JGR Planets **Bennu's Natural Sample Delivery Mechanism: Estimating the Flux of Bennuid**

**Meteors at Earth**

Moitra, P., Horvath, D. G., Andrews-Hanna, J. C. 2021, Earth and Planetary Science Letters **Investigating**

**the roles of magmatic volatiles, ground ice and impact-triggering on a very recent and highly explosive volcanic eruption on Mars**

Rizos, J. L., de León, J., Licandro, J., Golish, D. R., Campins, H., Tatsumi, E., Popescu, M., DellaGiustina, D. N.,

Pajola, M., Li, J.-Y., Becker, K. J., Lauretta, D. S. 2021, Icarus **Bennu's global surface and two candidate sample sites characterized by spectral clustering of OSIRIS-REx multispectral images**

Scalco, M., Bellini, A., Bedin, L. R., Anderson, J., Rosati, P., Libralato, M., Salaris, M., Vesperini, E., Nardiello, D., Apai, D., Burgasser, A. J., Gerasimov, R. 2021, Monthly Notices of the Royal Astronomical Society **The HST large programme on  $\alpha$  Centauri - IV. Catalogue of two external fields**

Schlawin, E., Su, K. Y. L., Herter, T., Ridden-Harper, A., Apai, D. 2021, The Astronomical Journal **LBT Reveals Large Dust Particles and a High Mass-loss Rate for K2-22 b**

Sharkey, B. N. L., Reddy, V., Sanchez, J. A., Izawa, M. R. M., Harris, W. M. 2021, The Planetary Science Journal **Complex Water-ice Mixtures on NII Nereid: Constraints from NIR Reflectance**

Singhal, A., Bhalerao, V., Mahabal, A. A., Vaghmare, K., Jagade, S., Kulkarni, S., Vibhute, A., Kembhavi, A. K., Drake, A. J., Djorgovski, S. G., Graham, M. J., Donalek, C., Christensen, E., Larson, S., Beshore, E. C. 2021, Monthly Notices of the Royal Astronomical Society **Deep co-added sky from catalina sky survey images**

Smith, I. B., Lalich, D. E., Rezza, C., Horgan, B. H. N., Whitten, J. L., Nerozzi, S., Holt, J. W. 2021, Geophysical Research Letters **A Solid Interpretation of Bright Radar Reflectors Under the Mars South Polar Ice**

## July 2021

17 publications

Ergun, R. E., Andersson, L. A., Fowler, C. M., Thaller, S. A., Yelle, R. V. 2021, Geophysical Research Letters **In-Situ Measurements of Electron Temperature and Density in Mars' Dayside Ionosphere**

Harra, L., Andretta, V., Appourchaux, T., Baudin, F., Bellot-Rubio, L., Birch, A. C., Boumier, P., Cameron, R. H., Carlsson, M., Corbard, T., Davies, J., Fazakerley, A., Fineschi, S., Finsterle, W., Gizon, L., Harrison, R., Hassler, D. M., Leibacher, J., Liewer, P., Macdonald, M., Maksimovic, M., Murphy, N., Naletto, G., Nigro, G., Owen, C., Martínez-Pillet, V., Rochus, P., Romoli, M., Sekii, T., Spadaro, D., Veronig, A., Schmutz, W. 2021, Experimental Astronomy **A journey of exploration to the polar regions of a star: probing the solar poles and the heliosphere from high helio-latitude**



King, G. W., Corrales, L., Wheatley, P. J., Lavvas, P., Steinrueck, M. E., Bourrier, V., Ehrenreich, D., Etangs, A. L. des., Louden, T. 2021, Monthly Notices of the Royal Astronomical Society **The near-UV transit of HD 189733b with the XMM-Newton Optical Monitor**

Khan, A., Ceylan, S., van Driel, M., Giardini, D., Lognonné, P., Samuel, H., Schmerr, N. C., Stähler, S. C., Duran, A. C., Huang, Q., Kim, D., Broquet, A., Charalambous, C., Clinton, J. F., Davis, P. M., Drilleau, M., Karakostas, F., Lekic, V., McLennan, S. M., Maguire, R. R., Michaut, C., Panning, M. P., Pike, W. T., Pinot, B., Plasman, M., Scholz, J.-R., Widmer-Schnidrig, R., Spohn, T., Smrekar, S. E., Banerdt, W. B. 2021, Science **Upper mantle structure of Mars from InSight seismic data**

Kirk, J., Rackham, B. V., MacDonald, R. J., López-Morales, M., Espinoza, N., Lendl, M., Wilson, J., Osip, D. J., Wheatley, P. J., Skillen, I., Apai, D., Bixel, A., Gibson, N. P., Jordán, A., Lewis, N. K., Louden, T., McGruder, C. D., Nikolov, N., Rodler, F., Weaver, I. C. 2021, The Astronomical Journal **ACCESS and LRG-BEASTS: A Precise New Optical Transmission Spectrum of the Ultrahot Jupiter WASP-103b**

Knapmeyer-Endrun, B., Panning, M. P., Bissig, F., Joshi, R., Khan, A., Kim, D., Lekić, V., Tausin, B., Tharimena, S., Plasman, M., Compaire, N., Garcia, R. F., Margerin, L., Schimmel, M., Stutzmann, É., Schmerr, N., Bozdağ, E., Plesa, A.-C., Wiczorek, M. A., Broquet, A., Antonangeli, D., McLennan, S. M., Samuel, H., Michaut, C., Pan, L., Smrekar, S. E., Johnson, C. L., Brinkman, N., Mittelholz, A., Rivoldini, A., Davis, P. M., Lognonné, P., Pinot, B., Scholz, J.-R., Stähler, S., Knapmeyer, M., van Driel, M., Giardini, D., Banerdt, W. B. 2021, Science **Thickness and structure of the martian crust from InSight seismic data**

Koskinen, T. T., Strobel, D. F., Brown, Z. 2021, Icarus **An empirical model of the Saturn thermosphere**

Lin, C.-L., Chen, W.-P., Ip, W.-H., Apai, D., Bixel, A., Boyle, R., Chavez, J. P., Espinoza, N., Gibbs, A., Gabor, P., Henning, T., Mancini, L., Rackham, B. V., Schlecker, M., Dietrich, J., Socia, Q. J., Keppler, M., Bhandare, A., Häberle, M. 2021, The Astronomical Journal **EDEN: Flare Activity of the Nearby Exoplanet-hosting M Dwarf Wolf 359 Based on K2 and EDEN Light Curves**

Loso, M. G., Larsen, C. F., Tober, B. S., Christoffersen, M., Fahnestock, M., Holt, J. W., Truffer, M. 2021, Geomorphology **Quo vadis, Alsek? Climate-driven glacier retreat may change the course of a major river outlet in southern Alaska**

Maguire, R., Schmerr, N., Pettit, E., Riverman, K., Gardner, C., DellaGiustina, D. N., Avenson, B., Wagner, N., Marusiak, A. G., Habib, N., Broadbeck, J. I., Bray, V. J., Bailey, S. H. 2021, The Cryosphere **Geophysical constraints on the properties of a subglacial lake in northwest Greenland**

Mayorga, L. C., Robinson, T. D., Marley, M. S., May, E. M., Stevenson, K. B. 2021, The Astrophysical Journal **Variable Irradiation on 1D Cloudless Eccentric Exoplanet Atmospheres**

Noonan, J. W., Rinaldi, G., Feldman, P. D., Stern, S. A., Parker, J. W., Keeney, B. A., Bockelée-Morvan, D., Vervack, R. J., Steffl, A. J., Knight, M. M., Schindhelm, R. N., Feaga, L. M., Pineau, J., Medina, R., Weaver, H. A., Bertaux, J.-L., A'Hearn, M. F. 2021, The Astronomical Journal **Analysis of Hybrid Gas-Dust Outbursts Observed at 67P/Churyumov-Gerasimenko**

Noonan, J. W., Bockelée-Morvan, D., Feldman, P. D., Alan Stern, S., Keeney, B. A., Parker, J. W., Biver, N., Knight, M. M., Feaga, L. M., Hofstadter, M. D., Lee, S., Vervack, R. J., Steffl, A. J., Schindhelm, R. N., Pineau, J., Medina, R., Weaver, H. A., Bertaux, J.-L., A'Hearn, M. F. 2021, The Astronomical Journal **Spatial Distribution of Ultraviolet Emission from Cometary Activity at 67P/Churyumov-Gerasimenko**

Praet, A., Barucci, M. A., Clark, B. E., Kaplan, H. H., Simon, A. A., Hamilton, V. E., Emery, J. P., Howell, E. S., Lim, L. F., Zou, X.-D., Li, J.-Y., Reuter, D. C., Merlin, F., Deshapriya, J. D. P., Fornasier, S., Hasselmann, P. H., Poggiali, G., Ferrone, S., Brucato, J. R., Takir, D., Cloutis, E., Connolly, H. C., Fulchignoni, M., Lauretta, D. S. 2021, Icarus **Hydrogen abundance estimation and distribution on (101955) Bennu**

Sattar, A., Haritashya, U. K., Kargel, J. S., Leonard, G. J., Shugar, D. H., Chase, D. V. 2021, Journal of Hydrology **Modeling lake outburst and downstream hazard assessment of the Lower Barun Glacial Lake, Nepal Himalaya**

Vigan, A., Fontanive, C., Meyer, M., Biller, B., Bonavita, M., Feldt, M., Desidera, S., Marleau, G.-D., Emsenhuber, A., Galicher, R., Rice, K., Forgan, D., Mordasini, C., Gratton, R., Le Coroller, H., Maire, A.-L., Cantalloube, F., Chauvin, G., Cheetham, A., Hagelberg, J., Lagrange, A.-M., Langlois, M., Bonnefoy, M., Beuzit, J.-L., Boccaletti, A., D'Orazi, V., Delorme, P., Dominik, C., Henning, T., Janson, M., Lagadec, E., Lazzoni, C., Ligi, R., Menard, F., Mesa, D., Messina, S., Moutou, C., Müller, A., Perrot, C., Samland, M., Schmid, H. M., Schmidt, T., Sissa, E., Turatto, M., Udry, S., Zurlo, A., Abe, L., Antichi, J., Asensio-Torres, R., Baruffolo, A., Baudoz, P., Baudrand, J., Bazzon, A., Blanchard, P., Bohn, A. J., Brown Sevilla, S., Carbillet, M., Carle, M., Cascone, E., Charton, J., Claudi, R., Costille, A., De Caprio, V., Delboulbé, A., Dohlen, K., Engler, N., Fantinel, D., Feautrier, P., Fusco, T., Gigan, P., Girard, J. H., Giro, E., Gisler, D., Gluck, L., Gry, C., Hubin, N., Hugot, E., Jaquet, M.,

Kasper, M., Le Mignant, D., Llored, M., Madec, F., Magnard, Y., Martinez, P., Maurel, D., Möller-Nilsson, O., Mouillet, D., Moulin, T., Origné, A., Pavlov, A., Perret, D., Petit, C., Pragt, J., Puget, P., Rabou, P., Ramos, J., Rickman, E. L., Rigal, F., Rochat, S., Roelfsema, R., Rousset, G., Roux, A., Salasnich, B., Sauvage, J.-F., Sevin, A., Soenke, C., Stadler, E., Suarez, M., Wahhaj, Z., Weber, L., Wildi, F. 2021, Astronomy and Astrophysics **The SPHERE infrared survey for exoplanets (SHINE). III. The demographics of young giant exoplanets below 300 au with SPHERE**

Zhang, Z., Liu, M. C., Marley, M. S., Line, M. R., Best, W. M. J. 2021, The Astrophysical Journal **Uniform Forward-modeling Analysis of Ultracool Dwarfs. I. Methodology and Benchmarking**

June 2021

27 publications

Brock, L., Barman, T., Konopacky, Q. M., Stone, J. M. 2021, The Astrophysical Journal **Cloud Properties of Brown Dwarf Binaries across the L/T Transition**

Cambioni, S., Jacobson, S. A., Emsenhuber, A., Asphaug, E., Rubie, D. C., Gabriel, T. S. J., Schwartz, S. R., Furfaro, R. 2021, The Planetary Science Journal **The Effect of Inefficient Accretion on Planetary Differentiation**

Cantillo, D. C., Reddy, V., Sharkey, B. N. L., Pearson, N. A., Sanchez, J. A., Izawa, M. R. M., Kareta, T., Campbell, T. S., Chabra, O. 2021, The Planetary Science Journal **Constraining the Regolith Composition of Asteroid (16) Psyche via Laboratory Visible Near-infrared Spectroscopy**

Chen, C. H. K., Chandran, B. D. G., Woodham, L. D., Jones, S. I., Perez, J. C., Bourouaine, S., Bowen, T. A., Klein, K. G., Moncuquet, M., Kasper, J. C., Bale, S. D. 2021, Astronomy and Astrophysics **The near-Sun streamer belt solar wind: turbulence and solar wind acceleration**

Fraser, W. C., Benecchi, S. D., Kavelaars, J. J., Marsset, M., Pike, R. E., Bannister, M. T., Schwamb, M. E., Volk, K., Nesvorny, D., Alexandersen, M., Chen, Y.-T., Gwyn, S., Lehner, M. J., Wang, S.-Y. 2021, The Planetary Science Journal **Col-OSSOS: The Distinct Color Distribution of Single and Binary Cold Classical KBOs**

Gharib-Nezhad, E., Iyer, A. R., Line, M. R., Freedman, R. S., Marley, M. S., Batalha, N. E. 2021, The Astrophysical Journal Supplement Series **EXOPLINES: Molecular Absorption Cross-section Database for Brown Dwarf and Giant Exoplanet Atmospheres**

Hamilton, V. E., Christensen, P. R., Kaplan, H. H., Haberle, C. W., Rogers, A. D., Glotch, T. D., Breitenfeld, L. B., Goodrich, C. A., Schrader, D. L., McCoy, T. J., Lantz, C., Hanna, R. D., Simon, A. A., Brucato, J. R., Clark, B. E., Lauretta, D. S. 2021, Astronomy and Astrophysics **Evidence for limited compositional and particle size variation on asteroid (101955) Bennu from thermal infrared spectroscopy**

Harbach, L. M., Moschou, S. P., Garraffo, C., Drake, J. J., Alvarado-Gómez, J. D., Cohen, O., Fraschetti, F. 2021, The Astrophysical Journal **Stellar Winds Drive Strong Variations in Exoplanet Evaporative Outflow Patterns and Transit Absorption Signatures**

Juno, J., Howes, G. G., TenBarge, J. M., Wilson, L. B., Spitkovsky, A., Caprioli, D., Klein, K. G., Hakim, A. 2021, Journal of Plasma Physics **A field-particle correlation analysis of a perpendicular magnetized collisionless shock**

Le Corre, L., Reddy, V., Bottke, W. F., DellaGiustina, D. N., Burke, K. N., Nola, J., Van Auken, R. B., Golish, D. R., Sanchez, J. A., Li, J.-Y., Drouet d'Aubigny, C. Y., Rizk, B., Lauretta, D. S. 2021, The Planetary Science Journal **Characterization of Exogenic Boulders on the Near-Earth Asteroid (101955) Bennu from OSIRIS-REx Color Images**

Li, J.-Y., Zou, X.-D., Golish, D. R., Clark, B. E., Ferrone, S., Fornasier, S., Hasselmann, P. H., Ryan, A. J., Rozitis, B., Emery, J. P., Siegler, M. A., Simon, A. A., DellaGiustina, D. N., Reuter, D. C., Hamilton, V. E., Lauretta, D. S. 2021, The Planetary Science Journal **Spectrophotometric Modeling and Mapping of (101955) Bennu**

Lin, H. W., Chen, Y.-T., Volk, K., Gladman, B., Murray-Clay, R., Alexandersen, M., Bannister, M. T., Lawler, S. M., Ip, W.-H., Lykawka, P. S., Kavelaars, J. J., Gwyn, S. D. J., Petit, J.-M. 2021, Icarus **OSSOS: The eccentricity and inclination distributions of the stable Neptunian Trojans**

Liu, S., Jokipii, J. R. 2021, Frontiers in Astronomy and Space Sciences **Acceleration of charged particles in astrophysical plasmas**

MacKenzie, S. M., Birch, S. P. D., Hörst, S., Sotin, C., Barth, E., Lora, J. M., Trainer, M. G., Corlies, P., Malaska, M. J., Sciamma-O'Brien, E., Thelen, A. E., Turtle, E., Radebaugh, J., Hanley, J., Solomonidou, A., Newman, C., Regoli, L., Rodriguez, S., Seignovert, B., Hayes, A. G., Journaux, B., Steckloff, J., Nna-Mvondo, D., Cornet, T.,

Palmer, M. Y., Lopes, R. M. C., Vinatier, S., Lorenz, R., Nixon, C., Czaplinski, E., Barnes, J. W., Sittler, E., Coates, A. 2021, The Planetary Science Journal **Titan: Earth-like on the Outside, Ocean World on the Inside**

MacGregor, J. A., Boisvert, L. N., Medley, B., Petty, A. A., Harbeck, J. P., Bell, R. E., Blair, J. B., Blanchard-Wrigglesworth, E., Buckley, E. M., Christoffersen, M. S., Cochran, J. R., Csathó, B. M., De Marco, E. L., Dominguez, R. T., Fahnestock, M. A., Farrell, S. L., Gogineni, S. P., Greenbaum, J. S., Hansen, C. M., Hofton, M. A., Holt, J. W., Jezek, K. C., Koenig, L. S., Kurtz, N. T., Kwok, R., Larsen, C. F., Leuschen, C. J., Locke, C. D., Manizade, S. S., Martin, S., Neumann, T. A., Nowicki, S. M. J., Paden, J. D., Richter-Menge, J. A., Rignot, E. J., Rodríguez-Morales, F., Siegfried, M. R., Smith, B. E., Sonntag, J. G., Studinger, M., Tinto, K. J., Truffer, M., Wagner, T. P., Woods, J. E., Young, D. A., Yungel, J. K. 2021, Reviews of Geophysics **The Scientific Legacy of NASA's Operation IceBridge**

Reiland, N., Rosengren, A. J., Malhotra, R., Bombardelli, C. 2021, Advances in Space Research **Assessing and minimizing collisions in satellite mega-constellations**

Schrader, D. L., Davidson, J., McCoy, T. J., Zega, T. J., Russell, S. S., Domanik, K. J., King, A. J. 2021, Geochimica et Cosmochimica Acta **The Fe/S ratio of pyrrhotite group sulfides in chondrites: An indicator of oxidation and implications for return samples from asteroids Ryugu and Bennu**

Sen, A., Clark, B. E., Cloutis, E. A., DellaGiustina, D. N., Hendrix, A. R., Simon, A. A., Applin, D. M., Parkinson, A., Turenne, N., Connell, S., Ferrone, S. M., Li, J.-Y., Lim, L. F., Lauretta, D. S., Pieters, C. 2021, Meteoritics and Planetary Science **Spectral effects of varying texture and composition in two-component "mudpie" simulations: Insights for asteroid (101955) Bennu**

Steckloff, J. K., Debes, J., Steele, A., Johnson, B., Adams, E. R., Jacobson, S. A., Springmann, A. 2021, The Astrophysical Journal **How Sublimation Delays the Onset of Dusty Debris Disk Formation around White Dwarf Stars**

Steinrueck, M. E., Showman, A. P., Lavvas, P., Koskinen, T., Tan, X., Zhang, X. 2021, Monthly Notices of the Royal Astronomical Society **3D simulations of photochemical hazes in the atmosphere of hot Jupiter HD 189733b**

Tribbett, P. D., Robinson, T. D., Koskinen, T. T. 2021, The Planetary Science Journal **Titan in Transit: Ultraviolet Stellar Occultation Observations Reveal a Complex Atmospheric Structure**

Vech, D., Martinović, M. M., Klein, K. G., Malaspina, D. M., Bowen, T. A., Verniero, J. L., Paulson, K., Dudok de Wit, T., Kasper, J. C., Huang, J., Stevens, M. L., Case, A. W., Korreck, K., Mozer, F. S., Goodrich, K. A., Bale, S. D.,

Whittlesey, P. L., Livi, R., Larson, D. E., Pulupa, M., Bonnell, J., Harvey, P., Goetz, K., MacDowall, R. 2021, Astronomy and Astrophysics **Wave-particle energy transfer directly observed in an ion cyclotron wave**

Vech, D., Stevens, M. L., Paulson, K. W., Malaspina, D. M., Case, A. W., Klein, K. G., Kasper, J. C. 2021, Astronomy and Astrophysics **A powerful machine learning technique to extract proton core, beam, and  $\alpha$ -particle parameters from velocity distribution functions in space plasmas**

Verscharen, D., Wicks, R. T., Alexandrova, O., Bruno, R., Burgess, D., Chen, C. H. K., D'Amicis, R., De Keyser, J., de Wit, T. D., Franci, L., He, J., Henri, P., Kasahara, S., Khotyaintsev, Y., Klein, K. G., Lavraud, B., Maruca, B. A., Maksimovic, M., Plaschke, F., Poedts, S., Reynolds, C. S., Roberts, O., Sahraoui, F., Saito, S., Salem, C. S., Saur, J., Servidio, S., Stawarz, J. E., Štverák, Š., Told, D. 2021, Experimental Astronomy **A Case for Electron-Astrophysics**

Weaver, I. C., López-Morales, M., Alam, M. K., Espinoza, N., Rackham, B. V., Goyal, J. M., MacDonald, R. J., Lewis, N. K., Apai, D., Bixel, A., Jordán, A., Kirk, J., McGruder, C., Osip, D. J. 2021, The Astronomical Journal **ACCESS: An Optical Transmission Spectrum of the High-gravity Hot Jupiter HAT-P-23b**

Weber, J., Cheshire, M. C., Bleuel, M., Mildner, D., Chang, Y.-J., Ievlev, A., Littrell, K. C., Ilavsky, J., Stack, A. G., Anovitz, L. M. 2021, Geochimica et Cosmochimica Acta **Influence of microstructure on replacement and porosity generation during experimental dolomitization of limestones**

Zega, T. J., Manga, V. R., Ciesla, F., Muralidharan, K., Watanabe, K., Inada, H. 2021, The Planetary Science Journal **Atomic-scale Evidence for Open-system Thermodynamics in the Early Solar Nebula**

Zhao, L.-L., Zank, G. P., Hu, Q., Telloni, D., Chen, Y., Adhikari, L., Nakanotani, M., Kasper, J. C., Huang, J., Bale, S. D., Korreck, K. E., Case, A. W., Stevens, M., Bonnell, J. W., Dudok de Wit, T., Goetz, K., Harvey, P. R., MacDowall, R. J., Malaspina, D. M., Pulupa, M., Larson, D. E., Livi, R., Whittlesey, P., Klein, K. G., Raouafi, N. E. 2021, Astronomy and Astrophysics **Detection of small magnetic flux ropes from the third and fourth Parker Solar Probe encounters**

May 2021

25 publications

- Bixel, A., Apai, D. 2021, The Astronomical Journal **Bioverse: A Simulation Framework to Assess the Statistical Power of Future Biosignature Surveys**
- Brugman, K. K., Phillips, M. G., Till, C. B. 2021, Journal of Geophysical Research (Planets) **Experimental Determination of Mantle Solidi and Melt Compositions for Two Likely Rocky Exoplanet Compositions**
- Diniega, S., Bramson, A. M., Buratti, B., Buhler, P., Burr, D. M., Chojnacki, M., Conway, S. J., Dundas, C. M., Hansen, C. J., McEwen, A. S., Lapôtre, M. G. A., Levy, J., Mc Keown, L., Piqueux, S., Portyankina, G., Swann, C., Titus, T. N., Widmer, J. M. 2021, Geomorphology **Modern Mars' geomorphological activity, driven by wind, frost, and gravity**
- Giacalone, J. 2021, The Astrophysical Journal **The Transport Equation for the Dispersal of Passive Tracers in a Nonuniform Turbulent Fluid: Numerical Simulations**
- Hardegree-Ullman, K. K., Christiansen, J. L., Ciardi, D. R., Crossfield, I. J. M., Dressing, C. D., Livingston, J. H., Volk, K., Agol, E., Barclay, T., Barentsen, G., Benneke, B., Gorjian, V., Kristiansen, M. H. 2021, The Astronomical Journal **K2-138 g: Spitzer Spots a Sixth Planet for the Citizen Science System**
- Huang, C., Rice, D. R., Grande, Z. M., Smith, D., Smith, J. S., Boisvert, J. H., Tschauner, O., Salamat, A., Steffen, J. H. 2021, Monthly Notices of the Royal Astronomical Society **Implications of an improved water equation of state for water-rich planets**
- Lo, D. Y., Yelle, R. V., Lillis, R. J., Deighan, J. I. 2021, Icarus **Carbon photochemical escape rates from the modern Mars atmosphere**
- Martinović, M. M., Klein, K. G., Huang, J., Chandran, B. D. G., Kasper, J. C., Lichko, E., Bowen, T., Chen, C. H. K., Matteini, L., Stevens, M., Case, A. W., Bale, S. D. 2021, The Astrophysical Journal **Multiscale Solar Wind Turbulence Properties inside and near Switchbacks Measured by the Parker Solar Probe**
- Naidu, S. P., Micheli, M., Farnocchia, D., Roa, J., Fedorets, G., Christensen, E., Weryk, R. 2021, The Astrophysical Journal **Precovery Observations Confirm the Capture Time of Asteroid 2020 CD3 as Earth's Minimoon**
- Paterson, K., Lundquist, M. J., Rastinejad, J. C., Fong, W., Sand, D. J., Andrews, J. E., Amaro, R. C., Eskandari, O., Wyatt, S., Daly, P. N., Bradley, H., Zhou-Wright, S., Valenti, S., Yang, S., Christensen, E., Gibbs, A. R., Shelly, F., Bilinski, C., Chomiuk, L., Corsi, A., Drout, M. R., Foley, R. J., Gabor, P., Garnavich, P., Grier, C. J., Hamden, E., Krantz, H., Olszewski, E., Paschalidis, V., Reichart, D., Rest, A., Smith, N., Strader, J., Trilling, D., Veillet, C.,

Wagner, R. M., Weiner, B., Zabludoff, A. 2021, The Astrophysical Journal **Searches after Gravitational Waves Using ARizona Observatories (SAGUARO): Observations and Analysis from Advanced LIGO/Virgo's Third Observing Run**

Roberts, J.H., Barnouin, O.S., Daly, M.G., Walsh, K.J., Nolan, M. C., Daly, R. T., Michel, P., Zhang, Y., Perry, M. E., Neumann, G. A., Seabrook, J. A., Gaskell, R. W., Palmer, E. E., Jr., Weirich, J. R., Watanabe, S., Hirata, N., Hirata, Na., Sugita, S., Scheeres, D. J., McMahon, J. W., Laretta, D. S. 2021, Planetary and Space Science **Rotational states and shapes of Ryugu and Bennu: Implications for interior structure and strength** [in press; available online 27 May]

Sanchis, E., Testi, L., Natta, A., Facchini, S., Manara, C. F., Miotello, A., Ercolano, B., Henning, T., Preibisch, T., Carpenter, J. M., de Gregorio-Monsalvo, I., Jayawardhana, R., Lopez, C., Mužiš, K., Pascucci, I., Santamaría-Miranda, A., van Terwisga, S., Williams, J. P. 2021, Astronomy and Astrophysics **Measuring the ratio of the gas and dust emission radii of protoplanetary disks in the Lupus star-forming region**

Scalco, M., Bellini, A., Bedin, L. R., Anderson, J., Rosati, P., Libralato, M., Salaris, M., Vesperini, E., Nardiello, D., Apai, D., Burgasser, A. J., Gerasimov, R. 2021, Monthly Notices of the Royal Astronomical Society **The HST large programme on  $\alpha$  Centauri - IV. catalogue of two external fields**

Schaefer, E. I., Hamilton, C. W., Neish, C. D., Sori, M. M., Bramson, A. M., Beard, S. P. 2021, Journal of Geophysical Research (Solid Earth) **Reexamining the Potential to Classify Lava Flows From the Fractality of Their Margins**

Scheirich, P., Pravec, P., Kušnirák, P., Hornoch, K., McMahon, J., Scheeres, D. J., Papek, D., Pray, D. P., Kušáková, H., Galád, A., Vraštil, J., Krugly, Y. N., Moskovitz, N., Avner, L. D., Skiff, B., McMillan, R. S., Larsen, J. A., Brucker, M. J., Tubbiolo, A. F., Cooney, W. R., Gross, J., Terrell, D., Burkhanov, O., Ergashev, K. E., Ehgamberdiev, S. A., Fatka, P., Durkee, R., Schunova, E. L., Inasaridze, R. Y., Ayvazian, V. R., Kapanadze, G., Gaftonyuk, N. M., Sanchez, J. A., Reddy, V., McGraw, L., Kelley, M. S., Molotov, I. E. 2021, Icarus **A satellite orbit drift in binary near-Earth asteroids (66391) 1999 KW4 and (88710) 2001 SL9 - Indication of the BYORP effect**



Schenk, P., Castillo-Rogez, J., Otto, K. A., Marchi, S., O'Brien, D., Bland, M., Hughson, K., Schmidt, B., Scully, J., Buczkowski, D., Krohn, K., Hoogenboom, T., Kramer, G., Bray, V., Neesemann, A., Hiesinger, H., Platz, T., De Sanctis, M. C., Schroeder, S., Le Corre, L., McFadden, L., Sykes, M., Raymond, C., Russell, C. T. 2021, Icarus **Compositional control on impact crater formation on mid-sized planetary bodies: Dawn at Ceres and Vesta, Cassini at Saturn**

Schlickeiser, R., Martinović, M. M., Yoon, P. H. 2021, Physics of Plasma **Subluminal electrostatic noise in isotropic space plasmas. General formulas and nonrelativistic thermal limit**

Simon, A. A., Reuter, D. C., Lauretta, D. S. 2021, J. of Astronomical Telescopes, Instruments, and Systems, **Derivation of the final OSIRIS-REx OVIRS in-flight radiometric calibration**

Tannock, M.E., Metchev, S., Heinze, A., Miles-Páez, P. A., Gagné, J., Burgasser, A., Marley, M. S., Apai, D., Suárez, G., Plavchan, P. 2021, The Astronomical Journal **Weather on Other Worlds. V. The Three Most Rapidly Rotating Ultra-cool Dwarfs**

Verniero, J. L., Howes, G. G., Stewart, D. E., Klein, K. G. 2021, Journal of Geophysical Research (Space Physics) **PATCH: Particle Arrival Time Correlation for Heliophysics**

Verniero, J. L., Howes, G. G., Stewart, D. E., Klein, K. G. 2021, Journal of Geophysical Research (Space Physics) **Determining Threshold Instrumental Resolutions for Resolving the Velocity Space Signature of Ion Landau Damping**

Wagner, K., Boehle, A., Pathak, P., Kasper, M., Arsenault, R., Jakob, G., Käufel, U., Leveratto, S., Maire, A.-L., Pantin, E., Siebenmorgen, R., Zins, G., Absil, O., Ageorges, N., Apai, D., Carlotti, A., Choquet, É., Delacroix, C., Dohlen, K., Duhoux, P., Forsberg, P., Fuenteseca, E., Gutruf, S., Guyon, O., Huby, E., Kampf, D., Karlsson, M., Kervella, P., Kirchbauer, J.-P., Klupar, P., Kolb, J., Mawet, D., N'Diaye, M., de Xivry, G. O., Quanz, S. P., Reutlinger, A., Ruane, G., Riquelme, M., Soenke, C., Sterzik, M., Vigan, A., de Zeeuw, T. 2021, Nature Communications **Author Correction: Imaging low-mass planets within the habitable zone of ? Centauri**

Whelan, E. T., Pascucci, I., Gorti, U., Edwards, S., Alexander, R. D., Sterzik, M. F., Melo, C. 2021, The Astrophysical Journal **Evidence for an MHD Disk Wind via Optical Forbidden Line Spectroastrometry**

Zhou, Y., Bowler, B. P., Wagner, K. R., Schneider, G., Apai, D., Kraus, A. L., Close, L. M., Herczeg, G. J., Fang, M. 2021, The Astronomical Journal **Hubble Space Telescope UV and H $\alpha$  Measurements of the Accretion Excess Emission from the Young Giant Planet PDS 70 b**

Zhu, P., Triana, S. A., Requier, J., Trinh, A., Dehant, V. 2021, Journal of Geodesy **Quantification of corrections for the main lunisolar nutation components and analysis of the free core nutation from VLBI-observed nutation residuals**

## April 2021

20 publications

Abedin, A. Y., Kavelaars, J. J., Greenstreet, S., Petit, J.-M., Gladman, B., Lawler, S., Bannister, M., Alexandersen, M., Chen, Y.-T., Gwyn, S., Volk, K. 2021, The Astronomical Journal **OSSOS. XXI. Collision Probabilities in the Edgeworth-Kuiper Belt**

Al Asad, M. M., Philpott, L. C., Johnson, C. L., Barnouin, O. S., Palmer, E., Weirich, J. R., Daly, M. G., Perry, M. E., Gaskell, R., Bierhaus, E. B., Seabrook, J. A., Espiritu, R., Nair, H., Ernst, C., Daly, R. T., Nolan, M. C., Enos, H. L., Lauretta, D. S. 2021, The Planetary Science Journal **Validation of Stereophotoclinometric Shape Models of Asteroid (101955) Bennu during the OSIRIS-REx Mission**

Baxter, C., Désert, J.-M., Tsai, S.-M., Todorov, K. O., Bean, J. L., Deming, D., Parmentier, V., Fortney, J. J., Line, M., Thorngren, D., Pierrehumbert, R. T., Burrows, A., Showman, A. P. 2021, Astronomy and Astrophysics **Evidence for disequilibrium chemistry from vertical mixing in hot Jupiter atmospheres. A comprehensive survey of transiting close-in gas giant exoplanets with warm-Spitzer/IRAC**

Calvin, W. M., Putzig, N. E., Dundas, C. M., Bramson, A. M., Horgan, B. H. N., Seelos, K. D., Sizemore, H. G., Ehlmann, B. L., Morgan, G. A., Holt, J. W., Murchie, S. L., Patterson, G. W. 2021, The Planetary Science Journal **The Mars Orbiter for Resources, Ices, and Environments (MORIE) Science Goals and Instrument Trades in Radar, Imaging, and Spectroscopy**

Gallagher, D. L., Comfort, R. H., Katus, R. M., Sandel, B. R., Fung, S. F., Adrian, M. L. 2021, Journal of Geophysical Research (Space Physics) **The Breathing Plasmasphere: Erosion and Refilling**

Giacalone, J., Nakanotani, M., Zank, G. P., Kòta, J., Opher, M., Richardson, J. D. 2021, The Astrophysical Journal **Hybrid Simulations of Interstellar Pickup Protons Accelerated at the Solar-wind Termination Shock at Multiple Locations**

Guo, F., Giacalone, J., Zhao, L. 2021, Frontiers in Astronomy and Space Sciences **Shock Propagation and Associated Particle Acceleration in the Presence of Ambient Solar-Wind Turbulence**

Jenniskens, P., Gabadirwe, M., Yin, Q.ΠZ., Proyer, A., Moses, O., Kohout, T., Franchi, F., Gibson, R.L., Kowalski, R., Christensen, E.J., Gibbs, A.R., Heinze, A., Denneau, L., Farnocchia, D., Chodas, P.W., Gray, W., Micheli, M., Moskovitz, N., Onken, C.A., Wolf, C., Devillepoix, H.A.R., Ye, Q., Robertson, D.K., Brown, P., Lyytinen, E., Moilanen, J., Albers, J., Cooper, T., Assink, J., Evers, L., Lahtinen, P., Seitshiro, L., Laubenstein, M., Wantlo, N., Moleje, P., Maritinkole, J., Suhonen, H., Zolensky, M.E., Ashwal, L., Hiroi, T., Sears, D.W., Sehlke, A., Maturilli, A., Sanborn, M.E., Huyskens, M.H., Dey, S., Ziegler, K., Busemann, H., Riebe, M.E.I., Meier, M.M.M., Welten, K.C., Caffee, M.W., Zhou, Q., Li, Q.ΠL., Li, X.ΠH., Liu, Y., Tang, G.ΠQ., McLain, H.L., Dworkin, J.P., Glavin, D.P., SchmittΠKopplin, P., Sabbah, H., Joblin, C., Granvik, M., Mosarwa, B. and Botepe, K. 2021, Meteorit Planet Sci. **The impact and recovery of asteroid 2018 LA**

Kareta, T., Woodney, L. M., Schambeau, C., Fernandez, Y., Pinto, O. H., Wierzchos, K., Womack, M., Bus, S. J., Steckloff, J., Sarid, G., Volk, K., Harris, W. M., Reddy, V. 2021, The Planetary Science Journal **Contemporaneous Multiwavelength and Precurecovery Observations of the Active Centaur P/2019 LD2 (ATLAS)**

Matsuyama, I., Keane, J. T., Trinh, A., Beuthe, M., Watters, T. R. 2021, Icarus **Global tectonic patterns of the Moon**

McEwen, A. S., Schaefer, E. I., Dundas, C. M., Sutton, S. S., Tamppari, L. K., Chojnacki, M. 2021, Journal of Geophysical Research (Planets) **Mars: Abundant Recurring Slope Lineae (RSL) Following the Planet Encircling Dust Event (PEDE) of 2018**

McGuire, L. A., Youberg, A. M., Rengers, F. K., Abramson, N. S., Ganesh, I., Gorr, A. N., Hoch, O., Johnson, J. C., Lamom, P., Prescott, A. B., Zanetell, J., Fenerty, B. 2021, Journal of Geophysical Research (Earth Surface) **Extreme Precipitation Across Adjacent Burned and Unburned Watersheds Reveals Impacts of Low Severity Wildfire on Debris Flow Processes**

Merlin, F., Deshapriya, J. D. P., Fornasier, S., Barucci, M. A., Praet, A., Hasselmann, P. H., Clark, B. E., Hamilton, V. E., Simon, A. A., Reuter, D. C., Zou, X.-D., Li, J.-Y., Schrader, D. L., Lauretta, D. S. 2021, Astronomy and Astrophysics **In search of Bennu analogs: Hapke modeling of meteorite mixtures**

Pegues, J., Öberg, K. I., Bergner, J. B., Huang, J., Pascucci, I., Teague, R., Andrews, S. M., Bergin, E. A., Cleeves, L. I., Guzmán, V. V., Long, F., Qi, C., Wilner, D. J. 2021, The Astrophysical Journal **An Atacama Large Millimeter/submillimeter Array Survey of Chemistry in Disks around M4-M5 Stars**

Perez, J. C., Chandran, B. D. G., Klein, K. G., Martinović, M. M. 2021, Journal of Plasma Physics **How Alfvén waves energize the solar wind: heat versus work**

Tan, X., Showman, A. P. 2021, Monthly Notices of the Royal Astronomical Society **Atmospheric circulation of brown dwarfs and directly imaged exoplanets driven by cloud radiative feedback: global and equatorial dynamics**

Thuillet, F., Zhang, Y., Michel, P., Biele, J., Kameda, S., Sugita, S., Tatsumi, E., Schwartz, S. R., Ballouz, R.-L. 2021, Astronomy and Astrophysics **Numerical modeling of lander interaction with a low-gravity asteroid regolith surface. II. Interpreting the successful landing of Hayabusa2 MASCOT**

Trang, D., Thompson, M. S., Clark, B. E., Kaplan, H. H., Zou, X.-D., Li, J.-Y., Ferrone, S. M., Hamilton, V. E., Simon, A. A., Reuter, D. C., Keller, L. P., Barucci, M. A., Campins, H., Lantz, C., DellaGiustina, D. N., Ballouz, R.-L., Jawin, E. R., Connolly, H. C., Walsh, K. J., Lauretta, D. S. 2021, The Planetary Science Journal **The Role of Hydrated Minerals and Space Weathering Products in the Bluing of Carbonaceous Asteroids**

Triana, S. A., Trinh, A., Requier, J., Zhu, P., Dehant, V. 2021, Journal of Geophysical Research (Solid Earth) **The Viscous and Ohmic Damping of the Earth's Free Core Nutation**

Zou, X.-D., Li, J.-Y., Clark, B. E., Golish, D. R., Ferrone, S., Simon, A. A., Reuter, D. C., Domingue, D. L., Kaplan, H., Barucci, M. A., Fornasier, S., Praet, A., Hasselmann, P. H., Bennett, C. A., Cloutis, E. A., Tatsumi, E., DellaGiustina, D. N., Lauretta, D. S. 2021, Icarus **Photometry of asteroid (101955) Bennu with OVIRS on OSIRIS-REx**

March 2021

23 publications

Anderson, D. E., Blake, G. A., Cleeves, L. I., Bergin, E. A., Zhang, K., Schwarz, K. R., Salyk, C., Bosman, A. D. 2021, The Astrophysical Journal **Observing Carbon and Oxygen Carriers in Protoplanetary Disks at Mid-infrared Wavelengths**

Ashton, E., Gladman, B., Kavelaars, J. J., Jones, R. L., Krughoff, K. S., Alexandersen, M., Bannister, M. T., Chen, Y.-T., Gwyn, S., Petit, J.-M., Volk, K. 2021, Icarus **OSSOS. XVII. An upper limit on the number of distant planetary objects in the Solar System**

Becerra, P., Byrne, S., Brown, A. J. 2021, Icarus **Corrigendum to "Transient bright "Halos" on the South Polar residual cap of Mars: Implications for mass-balance" [Icarus 251 (2015) 211-225]**

Bennett, C. A., DellaGiustina, D. N., Becker, K. J., Becker, T. L., Edmundson, K. L., Golish, D. R., Bennett, R. J., Burke, K. N., Cue, C. N. U., Clark, B. E., Contreras, J., Deshapriya, J. D. P., d'Aubigny, C. D., Fitzgibbon, G., Jawin, E. R., Nolan, T. Q., Porter, N. A., Riehl, M. M., Roper, H. L., Rizk, B., Tang, Y., Zeszut, Z., Gaskell, R. W., Palmer, E. E., Weirich, J. R., Al Asad, M. M., Philpott, L., Daly, M. G., Barnouin, O. S., Enos, H. L., Lauretta, D. S. 2021, Icarus **A high-resolution global basemap of (101955) Benu**

Burke, K. N.; DellaGiustina, D. N.; Bennett, C. A.; Walsh, K. J.; Pajola, M.; Bierhaus, E. B.; Nolan, M. C.; Boynton, W. V.; Brodbeck, J. sel.; Connolly, H.C., Jr.; Prasanna Deshapriya, J.D.; Dworkin, J.P.; Elder, C.M.; Golish, D.R.; Hoover, R.H.; Jawin, E. R.; McCoy, T.J.; Michel, P.; Molaro, J.L.; Nola, J.O.; Padilla, J.; Rizk, B.; Robbins, S.J.; Sahr, E.M.; Smith, P.H.; Stewart, S.J.; Susorney, H.C.M.; Enos, H.L.; Lauretta, D.S. Particle Size-Frequency Distributions of the OSIRIS-REx Candidate Sample Sites on Asteroid (101955) Benu. Remote Sens. 2021, 13, 1315. <https://doi.org/10.3390/rs13071315>

Deshapriya, J. D. P., Barucci, M. A., Bierhaus, E. B., Fornasier, S., Hasselmann, P. H., Merlin, F., Clark, B. E., Praet, A., Fulchignoni, M., Simon, A. A., Hamilton, V. E., Cloutis, E. A., Lantz, C., Zou, X. D., Li, J.-Y., Reuter, D. C., Brucato, J. R., Poggiali, G., Daly, R. T., Trang, D., Ferrone, S., DellaGiustina, D. N., Lauretta, D. S. 2021, Icarus **Spectral analysis of craters on (101955) Benu**

Dundas, C. M., Mellon, M. T., Conway, S. J., Daubar, I. J., Williams, K. E., Ojha, L., Wray, J. J., Bramson, A. M., Byrne, S., McEwen, A. S., Posiolova, L. V., Speth, G., Viola, D., Landis, M. E., Morgan, G. A., Pathare, A. V. 2021, Journal of Geophysical Research (Planets) **Widespread Exposures of Extensive Clean Shallow Ice in the Midlatitudes of Mars**

Egedal, J., Schroeder, J., Lichko, E. 2021, Journal of Plasma Physics **Parallel velocity mixing yielding enhanced electron heating during magnetic pumping**

Ferrone, S. M., Clark, B. E., Hawley, C. L., Joseph, J., Nolan, M. C., Bennett, C., Zou, X.-D., Selznick, S., Loveridge, M., Deshapriya, P., Lauretta, D. S. 2021, Earth and Space Science **Analysis of Projection Effects in OSIRIS REx Spectral Mapping Methods: Recommended Protocols for Facet Based Mapping**

Fraschetti, F. 2021, The Astrophysical Journal **Effect of Acceleration and Escape of Energetic Particles on Spectral Steepening at Shocks**

Galluzzi, V., Oliveira, J. S., Wright, J., Rothery, D. A., Hood, L. L. 2021, Geophysical Research Letters **Asymmetric Magnetic Anomalies Over Young Impact Craters on Mercury**

Golish, D. R., DellaGiustina, D. N., Li, J.-Y., Clark, B. E., Zou, X.-D., Smith, P. H., Rizos, J. L., Hasselmann, P. H., Bennett, C. A., Fornasier, S., Ballouz, R.-L., Drouet d'Aubigny, C., Rizk, B., Daly, M. G., Barnouin, O. S., Philpott, L., Al Asad, M. M., Seabrook, J. A., Johnson, C. L., Lauretta, D. S. 2021, Icarus **Disk-resolved photometric modeling and properties of asteroid (101955) Bennu**

Hasselmann, P. H., Fornasier, S., Barucci, M. A., Praet, A., Clark, B. E., Li, J.-Y., Golish, D. R., DellaGiustina, D. N., Deshapriya, J. D. P., Zou, X.-D., Daly, M. G., Barnouin, O. S., Simon, A. A., Lauretta, D. S. 2021, Icarus **Modeling optical roughness and first-order scattering processes from OSIRIS-REx color images of the rough surface of asteroid (101955) Bennu**

Johnson, J. R., Grundy, W. M., Lemmon, M. T., Liang, W., Bell, J. F., Hayes, A. G., Deen, R. G. 2021, Icarus **Spectrophotometric properties of materials observed by Pancam on the Mars Exploration Rovers: 4. Final mission observations**

Marocco, F., Eisenhardt, P. R. M., Fowler, J. W., Kirkpatrick, J. D., Meisner, A. M., Schlafly, E. F., Stanford, S. A., Garcia, N., Caselden, D., Cushing, M. C., Cutri, R. M., Faherty, J. K., Gelino, C. R., Gonzalez, A. H., Jarrett, T. H., Koontz, R., Mainzer, A., Marchese, E. J., Mobasher, B., Schlegel, D. J., Stern, D., Teplitz, H. I., Wright, E. L. 2021, The Astrophysical Journal Supplement Series **The CatWISE2020 Catalog**

Moore, K., Courville, S., Ferguson, S., Schoenfeld, A., Llera, K., Agrawal, R., Brack, D., Buhler, P., Connour, K., Czaplinski, E., DeLuca, M., Deutsch, A., Hammond, N., Kuettel, D., Marusiak, A., Nerozzi, S., Stuart, J., Tarnas, J., Thelen, A., Castillo-Rogez, J., Smythe, W., Landau, D., Mitchell, K., Budney, C. 2021, Planetary and Space Science **Bridge to the stars: A mission concept to an interstellar object**

Ogliore, R., Nagashima, K., Huss, G., Haenecour, P. 2021, Nuclear Instruments and Methods in Physics Research B **A reassessment of the quasi-simultaneous arrival effect in secondary ion mass spectrometry**

PaniĀ, O., Haworth, T. J., Petr-Gotzens, M. G., Miley, J., van den Ancker, M., Vioque, M., Siess, L., Parker, R., Clarke, C. J., Kamp, I., Kennedy, G., Oudmaijer, R. D., Pascucci, I., Richards, A. M. S., Ratzka, T., Qi, C. 2021, Monthly Notices of the Royal Astronomical Society **Planet formation in intermediate-separation binary systems**

Robbins, S. J., Schenk, P. M., Riggs, J. D., Parker, A. H., Bray, V. J., Beddingfield, C. B., Beyer, R. A., Verbiscer, A. J., Binzel, R., Runyon, K. D. 2021, Icarus **Depths of Pluto's and Charon's craters, and their simple-to-complex transition**

Rodriguez, J. A. P., Tanaka, K. L., Bramson, A. M., Leonard, G. J., Baker, V. R., Zarroca, M. 2021, Scientific Reports **North polar trough formation due to in-situ erosion as a source of young ice in mid-latitude mantles on Mars**

Roseborough, V., Horvath, D. G., Palucis, M. C. 2021, Geophysical Research Letters **Was Gale Crater (Mars) Connected to a Regionally Extensive Groundwater System?**

Susorney, H. C. M., Philpott, L. C., Ballouz, R. L., Johnson, C. L., Rozitis, B., Jawin, E. R. 2021, Icarus **Geological and geophysical constraints on Itokawa's past spin periods**

Tan, X., Showman, A. P. 2021, Monthly Notices of the Royal Astronomical Society **Atmospheric circulation of brown dwarfs and directly imaged exoplanets driven by cloud radiative feedback: effects of rotation**

Upcoming: Pre-pub PDF available. Accepted 31 March 2021. Hamilton, V., Christensen, P., Kaplan, H., Haberle, C., Rogers, A., Glotch, T., Breitenfeld, L., Goodrich, C., Schrader, D., McCoy, T., Lantz, C., Hanna, R., Simon, A., Brucato, J., Clark, B., Lauretta, D. 2021, A&A **Evidence for limited compositional and particle size variation on asteroid (101955) Bennu from thermal infrared spectroscopy**

## February 2021

20 publications

Agol, E., Dorn, C., Grimm, S. L., Turbet, M., Ducrot, E., Delrez, L., Gillon, M., Demory, B.-O., Burdanov, A.,

Barkaoui, K., Benkhaldoun, Z., Bolmont, E., Burgasser, A., Carey, S., de Wit, J., Fabrycky, D., Foreman-Mackey, D., Haldemann, J., Hernandez, D. M., Ingalls, J., Jehin, E., Langford, Z., Leconte, J., Lederer, S. M., Luger, R., Malhotra, R., Meadows, V. S., Morris, B. M., Pozuelos, F. J., Queloz, D., Raymond, S. N., Selsis, F., Sestovic, M., Triaud, A. H. M. J., Van Grootel, V. 2021, The Planetary Science Journal **Refining the Transit-timing and Photometric Analysis of TRAPPIST-1: Masses, Radii, Densities, Dynamics, and Ephemerides**

Asaduzzaman, A., Muralidharan, K., Zega, T. J. 2021, ACS Earth and Space Chemistry **Density Functional Theory Driven Analysis of the Interplay among Structure, Composition, and Oxidation State of Titanium in Hibonite, Spinel, and Perovskite**

Bierhaus, E. B., Songer, J. T., Clark, B. C., Dubisher, R. D., Deden, S. L., Payne, K. S., Wurts, D., McMahon, J. W., Rozitis, B., Laretta, D. S. 2021, Icarus **Bennu regolith mobilized by TAGSAM: Expectations for the OSIRIS-REx sample collection event and application to understanding naturally ejected particles**

Carone, L., Mollière, P., Zhou, Y., Bouwman, J., Yan, F., Baeyens, R., Apai, D., Espinoza, N., Rackham, B. V., Jordán, A., Angerhausen, D., Decin, L., Lendl, M., Venot, O., Henning, T. 2021, Astronomy and Astrophysics **Indications for very high metallicity and absence of methane in the eccentric exo-Saturn WASP-117b**

Golish, D. R., Shultz, N. K., Becker, T. L., Becker, K. J., Edmundson, K. L., DellaGiustina, D. N., Drouet d'Aubigny, C., Bennett, C. A., Rizk, B., Barnouin, O. S., Daly, M. G., Seabrook, J. A., Philpott, L., Al Asad, M. M., Johnson, C. L., Li, J.-Y., Ballouz, R.-L., Jawin, E. R., Laretta, D. S. 2021, Icarus **A high-resolution normal albedo map of asteroid (101955) Bennu** - available online October 2020; to be published in February 2021 issue

Hickson, D. C., Virkki, A. K., Perillat, P., Nolan, M. C., Bhiravarasu, S. S. 2021, The Planetary Science Journal **Polarimetric Decomposition of Near-Earth Asteroids Using Arecibo Radar Observations**

Hyodo, R., Guillot, T., Ida, S., Okuzumi, S., Youdin, A. N. 2021, Astronomy and Astrophysics **Planetesimal formation around the snow line. II. Dust or pebbles?**

Ida, S., Guillot, T., Hyodo, R., Okuzumi, S., Youdin, A. N. 2021, Astronomy and Astrophysics **Planetesimal formation around the snow line. I. Monte Carlo simulations of silicate dust pile-up in a turbulent disk**



Kareta, T., Hergenrother, C., Reddy, V., Harris, W. M. 2021, The Planetary Science Journal **Surfaces of (Nearly) Dormant Comets and the Recent History of the Quadrantid Meteor Shower**

Lorenz, R. D., MacKenzie, S. M., Neish, C. D., Le Gall, A., Turtle, E. P., Barnes, J. W., Trainer, M. G., Werynski, A., Hedgepeth, J., Karkoschka, E. 2021, The Planetary Science Journal **Selection and Characteristics of the Dragonfly Landing Site near Selk Crater, Titan**

Loyd, R. O. P., Shkolnik, E. L., Schneider, A. C., Richey-Yowell, T., Jackman, J. A. G., Peacock, S., Barman, T. S., Pagano, I., Meadows, V. S. 2021, The Astrophysical Journal **HAZMAT. VII. The Evolution of Ultraviolet Emission with Age and Rotation for Early M Dwarf Stars**

Masiero, J. R., Wright, E. L., Mainzer, A. K. 2021, The Planetary Science Journal **Uncertainties on Asteroid Albedos Determined by Thermal Modeling**

Morgan, G. A., Putzig, N. E., Perry, M. R., Sizemore, H. G., Bramson, A. M., Petersen, E. I., Bain, Z. M., Baker, D. M. H., Mastrogiuseppe, M., Hoover, R. H., Smith, I. B., Pathare, A., Dundas, C. M., Campbell, B. A. 2021, Nature Astronomy **Availability of subsurface water-ice resources in the northern mid-latitudes of Mars**

Myers, S. A., Barnes, J. W., Ahlers, J. P. 2021, The Planetary Science Journal **Constraints on Sub-Neptune Planet Candidate KOI-972.01 via Joint Variability/Gravity-darkening Analysis**

Nesvorný, D., Li, R., Simon, J. B., Youdin, A. N., Richardson, D. C., Marschall, R., Grundy, W. M. 2021, The Planetary Science Journal **Binary Planetesimal Formation from Gravitationally Collapsing Pebble Clouds**

Noonan, J. W., Harris, W. M., Bromley, S., Farnocchia, D., Li, J.-Y., Mandt, K. E., Parker, J. W., Venkataramani, K., Bodewits, D. 2021, The Planetary Science Journal **FUV Observations of the Inner Coma of 46P/Wirtanen**

Sheppard, K. B., Welbanks, L., Mandell, A. M., Madhusudhan, N., Nikolov, N., Deming, D., Henry, G. W., Williamson, M. H., Sing, D. K., López-Morales, M., Ih, J., Sanz-Forcada, J., Lavvas, P., Ballester, G. E., Evans, T. M., Muñoz, A. G., dos Santos, L. A. 2021, The Astronomical Journal **The Hubble PanCET Program: A Metal-rich Atmosphere for the Inflated Hot Jupiter HAT-P-41b**

Womack, M., Curtis, O., Rabson, D. A., Harrington Pinto, O., Wierzchos, K., Cruz Gonzalez, S., Sarid, G., Mentzer, C., Lastra, N., Pichette, N., Ruffini, N., Cox, T., Rivera, I., Micciche, A., Jackson, C., Homich, A., Tollison, A., Reed, S., Zilka, J., Henning, B., Spinar, M., Escoto, S. R., Erdahl, T., Goldschen-Ohm, M. P., Uhl, W.

T. 2021, The Planetary Science Journal **The Visual Lightcurve of Comet C/1995 O1 (Hale-Bopp) from 1995 to 1999**

Wagner, K., Boehle, A., Pathak, P., Kasper, M., Arsenault, R., Jakob, G., Käufl, U., Leveratto, S., Maire, A.-L., Pantin, E., Siebenmorgen, R., Zins, G., Absil, O., Ageorges, N., Apai, D., Carlotti, A., Choquet, É., Delacroix, C., Dohlen, K., Duhoux, P., Forsberg, P., Fuenteseca, E., Gutruf, S., Guyon, O., Huby, E., Kampf, D., Karlsson, M., Kervella, P., Kirchbauer, J.-P., Klupar, P., Kolb, J., Mawet, D., N'Diaye, M., Orban de Xivry, G., Quanz, S. P., Reutlinger, A., Ruane, G., Riquelme, M., Soenke, C., Sterzik, M., Vigan, A., de Zeeuw, T. 2021, Nature Communications **Imaging low-mass planets within the habitable zone of  $\alpha$  Centauri**

Yan, D., Guo, J., Huang, C., Xing, L. 2021, The Astrophysical Journal **Atmosphere Escape Inferred from Modeling the H $\alpha$  Transmission Spectrum of WASP-121b**

## January 2021

15 publications

Apai, D., Nardiello, D., Bedin, L. R. 2021, The Astrophysical Journal **TESS Observations of the Luhman 16 AB Brown Dwarf System: Rotational Periods, Lightcurve Evolution, and Zonal Circulation**

DellaGiustina, D. N., Kaplan, H. H., Simon, A. A., Bottke, W. F., Avdellidou, C., Delbo, M., Ballouz, R.-L., Golish, D. R., Walsh, K. J., Popescu, M., Campins, H., Barucci, M. A., Poggiali, G., Daly, R. T., Le Corre, L., Hamilton, V. E., Porter, N., Jawin, E. R., McCoy, T. J., Connolly, H. C., Garcia, J. L. R., Tatsumi, E., de Leon, J., Licandro, J., Fornasier, S., Daly, M. G., Al Asad, M. M., Philpott, L., Seabrook, J., Barnouin, O. S., Clark, B. E., Nolan, M. C., Howell, E. S., Binzel, R. P., Rizk, B., Reuter, D. C., Lauretta, D. S. 2021, Nature Astronomy **Exogenic basalt on asteroid (101955) Bennu**

Dietrich, J., Apai, D. 2021, The Astronomical Journal **An Integrated Analysis with Predictions on the Architecture of the  $\alpha$  Ceti Planetary System, Including a Habitable Zone Planet**

Furfaro, R., Barocco, R., Linares, R., Topputo, F., Reddy, V., Simo, J., Le Corre, L. 2021, Advances in Space Research **Modeling irregular small bodies gravity field via extreme learning machines and Bayesian optimization**

Glavin, D. P., Elsila, J. E., McLain, H. L., Aponte, J. C., Parker, E. T., Dworkin, J. P., Hill, D. H., Connolly, H. C., Lauretta, D. S. 2021, Meteoritics and Planetary Science **Extraterrestrial amino acids and L enantiomeric excesses in the CM2 carbonaceous chondrites Aguas Zarcas and Murchison**

Kurtovic, N. T., Pinilla, P., Long, F., Benisty, M., Manara, C. F., Natta, A., Pascucci, I., Ricci, L., Scholz, A., Testi, L. 2021, Astronomy and Astrophysics **Size and structures of disks around very low mass stars in the Taurus star-forming region**

Leibacher, J., Mandrini, C. H., van Driel-Gesztelyi, L., Wheatland, M. S. 2021, Solar Physics **Editorial Appreciation**

Levy, J. S., Fassett, C. I., Holt, J. W., Parsons, R., Cipolli, W., Goudge, T. A., Tebolt, M., Kuentz, L., Johnson, J., Ishraque, F., Cvijanovich, B., Armstrong, I. 2021, Proceedings of the National Academy of Science **Surface boulder banding indicates Martian debris-covered glaciers formed over multiple glaciations**

Loyd, R. O. P., Shkolnik, E. L., Schneider, A. C., Barman, T. S., Meadows, V. S., Pagano, I., Peacock, S. 2021, The Astrophysical Journal **Erratum: "HAZMAT. IV. Flares and Superflares on Young M Stars in the Far Ultraviolet" (2018, ApJ, 867, 70)**

Ojha, L., Karimi, S., Buffo, J., Nerozzi, S., Holt, J. W., Smrekar, S., Chevrier, V. 2021, Geophysical Research Letters **Martian Mantle Heat Flow Estimate From the Lack of Lithospheric Flexure in the South Pole of Mars: Implications for Planetary Evolution and Basal Melting**

Parmentier, V., Showman, A. P., Fortney, J. J. 2021, Monthly Notices of the Royal Astronomical Society **The cloudy shape of hot Jupiter thermal phase curves**

Svinkin, D., Frederiks, D., Hurley, K., Aptekar, R., Golenetskii, S., Lysenko, A., Ridnaia, A. V., Tsvetkova, A., Ulanov, M., Cline, T. L., Mitrofanov, I., Golovin, D., Kozyrev, A., Litvak, M., Sanin, A., Goldstein, A., Briggs, M. S., Wilson-Hodge, C., von Kienlin, A., Zhang, X.-L., Rau, A., Savchenko, V., Bozzo, E., Ferrigno, C., Ubertini, P., Bazzano, A., Rodi, J. C., Barthelmy, S., Cummings, J., Krimm, H., Palmer, D. M., Boynton, W., Fellows, C. W., Harshman, K. P., Enos, H., Starr, R. 2021, Nature **A bright  $\gamma$ -ray flare interpreted as a giant magnetar flare in NGC 253**

Thuillet, F., Michel, P., Tachibana, S., Ballouz, R.-L., Schwartz, S. R. 2020, Monthly Notices of the Royal Astronomical Society **Numerical modelling of medium-speed impacts on a granular surface in a low-gravity environment application to Hayabusa2 sampling mechanism**

Ward-Duong, K., Patience, J., Follette, K., De Rosa, R. J., Rameau, J., Marley, M., Saumon, D., Nielsen, E. L., Rajan, A., Greenbaum, A. Z., Lee, J., Wang, J. J., Czekala, I., Duchêne, G., Macintosh, B., Ammons, S. M., Bailey, V. P., Barman, T., Bulger, J., Chen, C., Chilcote, J., Cotten, T., Doyon, R., Esposito, T. M., Fitzgerald, M. P., Gerard, B. L., Goodsell, S. J., Graham, J. R., Hibon, P., Hom, J., Hung, L.-W., Ingraham, P., Kalas, P., Konopacky, Q., Larkin, J. E., Maire, J., Marchis, F., Marois, C., Metchev, S., Millar-Blanchaer, M. A., Oppenheimer, R., Palmer, D., Perrin, M., Poyneer, L., Pueyo, L., Rantakyö, F. T., Ren, B., Ruffio, J.-B., Savransky, D., Schneider, A. C., Sivaramakrishnan, A., Song, I., Soummer, R., Tallis, M., Thomas, S., Wallace, J. K., Wiktorowicz, S., Wolff, S. 2021, *The Astronomical Journal* **Gemini Planet Imager Spectroscopy of the Dusty Substellar Companion HD 206893 B**

Yan, F., Wyttenbach, A., Casasayas-Barris, N., Reiners, A., Pallé, E., Henning, T., Mollière, P., Czesla, S., Nortmann, L., Molaverdikhani, K., Chen, G., Snellen, I. A. G., Zechmeister, M., Huang, C., Ribas, I., Quirrenbach, A., Caballero, J. A., Amado, P. J., Cont, D., Khalafinejad, S., Khaimova, J., López-Puertas, M., Montes, D., Nagel, E., Oshagh, M., Pedraz, S., Stangret, M. 2021, *Astronomy and Astrophysics* **Detection of the hydrogen Balmer lines in the ultra-hot Jupiter WASP-33b**