

# LIST OF PUBLICATIONS

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## Refereed Publications

### First author

- J. Agarwal, Y. Kim, D. Jewitt, H. Weaver, M. Mutchler, S. Larson (2020), *Component properties and mutual orbit of binary main-belt comet 288P/(300163) 2006 VW139*, A&A 643, A152.
- J. Agarwal and M. Mommert (2018), *The nucleus of active asteroid 358P/Pan-STARRS (P/2012 T1)*, A&A 616, A54.
- J. Agarwal, D. Jewitt, H. Weaver, M. Mutchler, S. Larson (2017), *A binary main-belt comet*, Nature 549, 357.
- J. Agarwal, V. Della Corte, P. D. Feldman and 67 co-authors (2017), *Evidence of sub-surface energy storage in comet 67P from the outburst of 2016 July 03*, MNRAS 469, S606.
- J. Agarwal, M. F. A'Hearn, J.-B. Vincent and 41 co-authors (2016), *Acceleration of individual, decimetre-sized aggregates in the lower coma of comet 67P/Churyumov-Gerasimenko*, MNRAS 462, S78.
- J. Agarwal, D. Jewitt, H. Weaver, M. Mutchler, S. Larson (2016), *Hubble and Keck Telescope Observations of Active Asteroid 288P/300163 (2006 VW139)*, AJ, 151, 12.
- J. Agarwal, D. Jewitt, and H. Weaver (2013), *Dynamics of Large Fragments in the Tail of Active Asteroid P/2010 A2*, ApJ 769, 46.
- J. Agarwal, M. Müller, W. T. Reach, M. V. Sykes, H. Boehnhardt, and E. Grün (2010), *The Dust Trail of Comet 67P/Churyumov-Gerasimenko between 2004 and 2006*, Icarus 207, 992-1012.
- J. Agarwal, M. Müller, and E. Grün (2007), *Dust Environment Modelling of Comet 67P/Churyumov-Gerasimenko*, Space Science Reviews 128, 79-131.
- J. Agarwal, H. Bönhardt, and E. Grün (2007), *Imaging the dust trail and neckline of 67P/Churyumov-Gerasimenko*. In H. Krüger and A. Graps (eds.) "ESA SP-643: Dust in Planetary Systems", 51-54.
- J. Agarwal, M. Müller, H. Bönhardt, and E. Grün (2006), *Modelling the large particle environment of comet 67P/Churyumov-Gerasimenko*, Adv. Sp. Res. 38 (9), 2049-2053.
- J. Agarwal and D. Hennig (2003), *Breather solutions of a nonlinear DNA model including a longitudinal degree of freedom*, Physica A 323, 519-533.

### Second to fourth author

- P. Lemos, J. Agarwal, M. Schröter (2023), *Distribution and dynamics of decimetre-sized dust agglomerates in the coma of 67P/Churyumov-Gerasimenko*, accepted for publication by MNRAS.
- N. Attree, L. Jorda, O. Groussin, J. Agarwal and 4 co-authors (2023), *Activity distribution of comet 67P/Churyumov-Gerasimenko from combined measurements of non-gravitational*

*forces and torques*, A&A 670, A170.

Y. Kim, J. Agarwal, D. Jewitt and 4 co-authors (2022), *Sublimation origin of active asteroid P/2018 P3*, A&A 666, A163.

Y. Kim, D. Jewitt, J. Agarwal and 3 co-authors (2022), *Hubble Space Telescope Observations of Active Asteroid P/2020 O1 (Lemmon-PANSTARRS)*, ApJL 933, L15.

M. Pfeifer, J. Agarwal, M. Schröter (2022), *On the trail of a comet's tail: A particle tracking algorithm for comet 67P/Churyumov-Gerasimenko*, A&A, in press.

Y. Kwon, S. Bagnulo, J. Markkanen, J. Agarwal and 4 co-authors (2022), *VLT spectropolarimetry of comet 67P: dust environment around the end of its intense southern summer*, A&A 657, A40.

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- D. Jewitt, J. Agarwal, J. Li, H. Weaver, M. Mutchler, S. Larson (2017), *Anatomy of an Asteroid Breakup: The Case of P/2013 R3*, AJ 153, 223.
- E. Grün, J. Agarwal and 94 co-authors (2016), *The 19 Feb. 2016 Outburst of Comet 67P/CG: An ESA Rosetta Multi-Instrument Study*, MNRAS, 462, S220.
- A. Gicquel, J.-B. Vincent, J. Agarwal and 58 co-authors (2016), *Sublimation of icy aggregates in the coma of comet 67P/Churyumov-Gerasimenko detected with the OSIRIS cameras on board Rosetta*, MNRAS 462, S57.
- D. Jewitt, J. Agarwal, H. Weaver, M. Mutchler, J. Li, S. Larson (2016), *Hubble Space Telescope Observations of Active Asteroid 324P/La Sagra*, AJ 152, 77.
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- D. Jewitt, M. Ishiguro, H. Weaver, J. Agarwal, M. Mutchler, and S. Larson (2014), *Hubble Space Telescope Investigation of Main-belt Comet 133P/Elst-Pizarro*, AJ 174, 117.
- D. Jewitt, J. Agarwal, J.-Li, H. Weaver, M. Mutchler, and S. Larson (2014), *Disintegrating Asteroid P/2013 R3*, ApJL 784, L8.
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*periodic and disordered DNA*, Physica D 180(3-4), 256-272.

Fifth+ author

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Y. Kwon and 4 co-authors (2022), *Probing the surface environment of large T-type asteroids*, A&A 666, A173.

X. Shi and 28 co-authors (2021), *GAUSS - genesis of asteroids and evolution of the solar system*, Experimental Astronomy, doi = 10.1007/s10686-021-09800-1.

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R. Marschall and 11 co-authors (2020), *Cometary Comae-Surface Links*, SSR 216, id. 130.

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I. Bertini and 49 co-authors (2018), *The backscattering ratio of comet 67P/Churyumov-Gerasimenko dust coma as seen by OSIRIS onboard Rosetta*, MNRAS 482, 2924.

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- A.-T. Auger and 50 co-authors (2018), *Meter-scale thermal contraction crack polygons on the nucleus of comet 67P/Churyumov-Gerasimenko*, *Icarus* 301, 173.
- F. Preusker and 44 co-authors (2017), *The global meter-level shape model of comet 67P/Churyumov-Gerasimenko*, *A&A* 607, L1.
- D. Jewitt, M. T. Hui, M. Mutchler, H. Weaver, J. Li, J. Agarwal (2017), *A Comet Active Beyond the Crystallization Zone*, *ApJ* 847, L19.
- E. Drolshagen and 42 co-authors (2017), *Distance determination method of dust particles using Rosetta OSIRIS NAC and WAC data*, *Planetary and Space Science* 143, 256.
- X. Hu and 53 co-authors (2017), *Seasonal erosion and restoration of the dust cover on comet 67P/Churyumov-Gerasimenko as observed by OSIRIS onboard Rosetta*, *A&A* 604, A114.
- J. Blum and 21 co-authors (2017), *Evidence for the formation of comet 67P/Churyumov-Gerasimenko through gravitational collapse of a bound clump of pebbles*, *MNRAS* 469, S755.
- L. Penasa and 55 co-authors (2017), *A three-dimensional modelling of the layered structure of comet 67P/Churyumov-Gerasimenko*, *MNRAS* 469, S741.
- Z.-Y. Lin and 48 co-authors (2017), *Investigating the physical properties of outbursts on comet 67P/Churyumov-Gerasimenko*, *MNRAS* 469, S731.
- M. Pajola and 55 co-authors (2017), *The pebbles/boulders size distributions on Sais: Rosetta's final landing site on comet 67P/Churyumov-Gerasimenko*, *MNRAS* 469, S636.
- I. Bertini and 54 co-authors (2017), *The scattering phase function of comet 67P/Churyumov-Gerasimenko coma as seen from the Rosetta/OSIRIS instrument*, *MNRAS* 469, S404.
- M. I. Schmitt and 49 co-authors (2017), *Long-term monitoring of comet 67P/Churyumov-Gerasimenko's jets with OSIRIS onboard Rosetta*, *MNRAS* 469, S380.
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- X. Hu and 53 co-authors (2017), *Thermal modelling of water activity on comet 67P/Churyumov-Gerasimenko with global dust mantle and plural dust-to-ice ratio*, *MNRAS* 469, S295.
- T. Ott and 52 co-authors (2017), *Dust mass distribution around comet 67P/Churyumov-Gerasimenko determined via parallax measurements using Rosetta's OSIRIS cameras*, *MNRAS* 469, S276.
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A. Gicquel and 62 co-authors (2017), *Modelling of the outburst on 2015 July 29 observed with OSIRIS cameras in the Southern hemisphere of comet 67P/Churyumov-Gerasimenko*, MNRAS 469, S178.

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A. Lucchetti and 47 co-authors (2016), *Characterization of the Abydos region through OSIRIS high-resolution images in support of CIVA measurements*, A&A 585, L1.

C. Tubiana and 53 co-authors (2015), *Scientific assessment of the quality of OSIRIS images*, A&A 583, A46.

N. Oklay and 41 co-authors (2015), *Characterization of OSIRIS NAC filters for the interpretation of multispectral data of comet 67P/Churyumov-Gerasimenko*, A&A 583, A45.

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M.-R. El-Maarry and 53 co-authors (2015), *Regional surface morphology of comet 67P/Churyumov-Gerasimenko from Rosetta/OSIRIS images*, A&A 583, A26.

A. Pommerol and 54 co-authors (2015), *OSIRIS observations of meter-sized exposures of H<sub>2</sub>O ice at the surface of 67P/Churyumov-Gerasimenko and interpretation using laboratory experiments*, A&A 583, A25.

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## **Theses**

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## **Book Contributions**

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### **Popular Science Articles**

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J. Agarwal, *Ein aktiver Doppelasteroid*, Sterne und Weltraum, Januar 2018.

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