

## All Publications – Christian Möstl

**116 articles (16 as first author) published in internationally peer reviewed journals.**

**Total refereed citations: 4587, h-index 40 (source: [SAO/NASA ADS](#), February 2024).**

**[ORCID: 0000-0001-6868-4152](#) [google scholar](#) (h-index 43, 5451 citations)**

**(a) peer-reviewed**

***submitted / in revision / revised:***

117. Eastwood, J. P., P. Brown, W. Magnes, C. M. Carr, M. Agu, R. Baughen, G. Berghofer, J. Hodgkins, I. Jernej, **C. Möstl**, T. Oddy, A. Strickland, A. Vitkova, Definition and design of the Vigil magnetometer for operational space weather services from the Sun-Earth L5 point, *Space Weather*, submitted, 2024.

***published / in press:***

116. Laker, R., T. S. Horbury, H. O'Brien, E. J. Fauchon-Jones, V. Angelini, N. Fargette, T. Amerstorfer, M. Bauer, **C. Möstl**, E. E. Davies, J. A. Davies, R. A. Harrison, D. Barnes, M. Dumbovic, Using Solar Orbiter as an upstream solar wind monitor for real time space weather predictions, *Space Weather*, in press, 2024. <https://arxiv.org/abs/2307.01083>

115. Reiss, M. A., K. Muglach, E. Mason, E. E. Davies, S. Chakraborty, V. Delouille, C. Downs, T. G. Garton, J. A. Grajeda, A. Hamada, S. G. Heinemann, S. Hofmeister, E. Illarionov, R. Jarolim, L. Krista, C. Lowder, E. Verwichte, C. N. Arge, L. E. Boucheron, C. Foullon, M. S. Kirk, A. Kosovichev, A. Leisner, **C. Möstl**, J. Turtle, A. Veronig, A Community Dataset for Comparing Automated Coronal Hole Detection Schemes, *ApJS*, in press, 2024. <https://arxiv.org/abs/2312.03942>

114. Lugaz, N., B. Zhuang, C. Scolini, N. Al-Haddad, C. J. Farrugia, R. M. Winslow, F. Regnault, **C. Möstl**, E. E. Davies, and A. B. Galvin, The Width of Magnetic Ejecta Measured Near 1 au: Lessons from STEREO-A Measurements in 2021–2022, *ApJ*, in press, 2024. <https://arxiv.org/abs/2312.03942>

113. Davies, E. E., C. Scolini, R. M. Winslow, A. P. Jordan, **C. Möstl**, The effect of magnetic reconnection on ICME-related GCR modulation, *ApJ*, 959, 133, 2023. <https://iopscience.iop.org/article/10.3847/1538-4357/ad046a>  
<https://arxiv.org/abs/2310.11310>

112. Good, S.W., O. K. Rantala, A.-S. M. Jylha, C. H. K. Chen, **C. Möstl** and E. K. J. Kilpua, Turbulence Properties of Interplanetary Coronal Mass Ejections in the Inner Heliosphere: Dependence on Proton beta and Flux Rope Structure, *ApJL*, 956, L30, 2023. <https://arxiv.org/abs/2307.09800>

111. Pal, S., L. Balmaceda, A. J. Weiss, T. Nieves-Chinchilla, F. Carcaboso, E. K. J. Kilpua, and **C. Möstl**, Global insight into a complex structured heliosphere based on the local multi-point analysis, *Frontiers in Astronomy and Space Sciences (Space Physics)*, 10, fspas.2023.1195805, 2023. <https://www.frontiersin.org/articles/10.3389/fspas.2023.1195805/full>

110. Harrison, R. A., J. A. Davies, D. Barnes, **C. Möstl**, et al., A comparison between coronagraph and heliospheric imager observations at L1 and off the Sun-Earth line for Earth-directed CMEs: An analysis of anomalous observations, *Space Weather*, 21, 4, e2022SW003358, 2023. <https://doi.org/10.1029/2022SW003358> <https://arxiv.org/abs/2304.05264>

109. Riley, P., M.A. Reiss, **C. Möstl**, Which Upstream Explanatory Variables Matter Most in Predicting Bz within Coronal Mass Ejections, *Space Weather*, 21, 4, e2022SW003327, 2023.  
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108. Mierla, M., H. Cremades, V. Andretta, I. Chifu, A. N. Zhukov, R. Susino, F. Auchere, A. Vourlidas, D.-C. Talpeanu, L. Rodriguez, J. Janssens, B. Nicula, R. A. Cuadrado, D. Berghmans, A. Bemporad, E. D’Huys, L. Dolla, S. Gissot, G. Jerse, E. Kraaikamp, D. M. Long, B. Mampaey, **C. Möstl**, P. Pagano, S. Parenti, M. J. West, O. Podladchikova, M. Romoli, C. Sasso, K. Stegen, L. Teriaca, W. Thompson, C. Verbeeck, E. Davies, Three eruptions observed by remote sensing instruments onboard Solar Orbiter, *Solar Physics*, 298, 42, 2023.  
<https://link.springer.com/article/10.1007/s11207-023-02137-2>
107. Rodriguez, L., A. Warmuth, V. Andretta, M. Mierla, A. N. Zhukov, D. Shukhobodskaya, A. Niemela, A. Maharana, M.J. West, E. K. J. Kilpua, **C. Möstl**, E. D’Huys, A. M. Veronig, F. Auchère, A. F. Battaglia, F. Benvenuto, D. Berghmans, E. C. M. Dickson, M. Dominique, S. Gissot, L. A. Hayes, T. Katsiyannis, E. Kraaikamp, F. Landini, J. Magdalenic, G. Mann, P. Massa, B. Nicula, M. Piana, O. Podladchikova, C. Sasso, F. Schuller, K. Stegen, R. Susino, M. Uslenghi, C. Verbeeck, The eruption of 22 April 2021 as observed by Solar Orbiter, STEREO and Earth bound instruments, *Solar Physics*, 298, 1, 2023.  
<https://link.springer.com/article/10.1007/s11207-022-02090-6>
106. Rüdissler, H. T., A. Windisch, U. V. Amerstorfer, **C. Möstl**, T. Amerstorfer, R. L. Bailey, M. A. Reiss, Automatic Detection of Interplanetary Coronal Mass Ejections in Solar Wind In Situ Data, *Space Weather*, 20, 10, 2022.  
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<https://arxiv.org/abs/2202.10096>  
<https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2022JA030898>
104. Davies, E.E., R. M. Winslow, C. Scolini, R. J. Forsyth, **C. Möstl**, Multi-Spacecraft Observations of the Evolution of Interplanetary Coronal Mass Ejections Between 0.3 and 2.2 AU: Conjunctions with the Juno Spacecraft, *ApJ*, 933, 127, 2022.  
<https://arxiv.org/abs/2205.09472>  
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<https://iopscience.iop.org/article/10.3847/2041-8213/ac42d0> <https://arxiv.org/abs/2109.07200>

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97. Simon Wedlund, C., M. Volwerk, A. Beth, C. Mazelle, **C. Möstl**, J. Halekas, J. Gruesbeck, D. Rojas-Castillo, A fast bow shock location predictor-estimator from 2D and 3D analytical models: Application to Mars and the MAVEN mission, *Journal of Geophysical Research (Space Physics)*, 127, 1, e2021JA029942, 2022.. <https://arxiv.org/abs/2109.04366>

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96. Simon Wedlund, C., M. Volwerk, C. Mazelle, J. Halekas, D. Rojas-Castillo, J. Espley, **C. Möstl**, Making waves: Mirror Mode structures around Mars observed by the MAVEN spacecraft, *Journal of Geophysical Research (Space Physics)*, 127, e2021JA029811, 2022.

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