

## All Publications – Christian Möstl

87 articles (15 as first author) in internationally peer reviewed journals.

Total refereed citations: 2915, h-index 31 (source: [SAO/NASA ADS](#), April 2021).

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### (a) peer-reviewed

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

89. D. Telloni, C. Scolini, **C. Möstl**, G. P. Zank, L. Zhao, Andreas J. Weiss, Martin A. Reiss et al., Study of two interacting Interplanetary Coronal Mass Ejections encountered by Solar Orbiter during its first perihelion passage, *A&A Solar Orbiter first results special issue*, in revision, 2021.

88. Weiss, A. J., **C. Möstl**, E. E. Davies, T. Amerstorfer, M. Bauer, J. Hinterreiter, M. A. Reiss, R. L. Bailey, T. S. Horbury, H. O'Brien, V. Evans, V. Angelini, D. Heyner, I. Richter, H.-U. Auster, W. Magnes, D. Fischer, W. Baumjohann, Multipoint analysis of coronal mass ejection flux ropes using combined data from Solar Orbiter, BepiColombo and Wind, *A&A Solar Orbiter first results special issue*, in revision, 2021.

#### **Published / in press:**

87. Bailey, R. L., Reiss, M. A., Arge, C. N., **Möstl, C.**, Owens, M. J., Amerstorfer, U. V., Henney, C. J., Amerstorfer, T., Weiss, A. J., & Hinterreiter, J., Using gradient boosting regression to improve ambient solar wind model predictions, *Space Weather*, in press, 2021.

<https://arxiv.org/abs/2006.12835>

86. Reiss, M. A., K. Muglach, **C. Möstl**, C. N. Arge, R. L. Bailey, V. Delouille, T. M. Garton, A. Hamada, S. Hofmeister, E. Illarionov, R. Jarolim, M. S. F. Kirk, A. Kosovichev, L. Krista, S. Lee, Sangwoo, C. Lowder, P. J. MacNeice, A. Veronig, ISWAT Coronal Hole Boundary Working Team, The Observational Uncertainty of Coronal Hole Boundaries in Automated Detection Schemes, *ApJ*, in press, 2021. <https://arxiv.org/abs/2103.14403>

85. O'Kane, J., Lucie M. Green, Emma E. Davies, **C. Möstl**, Jürgen Hinterreiter, Johan L. Freiherr von Forstner, Andreas J. Weiss, David M. Long, and Tanja Amerstorfer, Origins of a stealth CME detected at Solar Orbiter, *A&A Solar Orbiter first results special issue*, in press, 2021. <https://arxiv.org/abs/2103.17225> <https://doi.org/10.1051/0004-6361/202140622>

84. Davies, E. E., **C. Möstl**, M.J. Owens, A.J. Weiss, T. Amerstorfer, J. Hinterreiter, M. Bauer, R.L. Bailey, M.A. Reiss, R.J. Forsyth, T.S. Horbury, H. O'Brien, V. Evans, V. Angelini, D. Heyner, I. Richter, H-U. Auster, W. Magnes, W. Baumjohann, D. Fischer, D. Barnes, J.A. Davies, and R.A. Harrison, In-Situ Multi-Spacecraft and Remote Imaging Observations of the First CME Detected by Solar Orbiter and Bepi Colombo, *A&A Solar Orbiter first results special issue*, in press, 2021.

<https://arxiv.org/abs/2012.07456> <https://doi.org/10.1051/0004-6361/202040113>

83. von Forstner, J. L. F., M. Dumbovic, **C. Möstl**, et al., Radial Evolution of the April 2020 Stealth Coronal Mass Ejection between 0.8 and 1 AU - A Comparison of Forbush Decreases at Solar Orbiter and Earth, *A&A Solar Orbiter first results special issue*, in press, 2021.

<https://arxiv.org/abs/2102.12185> <https://doi.org/10.1051/0004-6361/202039848>

82. Hinterreiter, J., T. Amerstorfer, M. A. Reiss, **C. Möstl**, M. Temmer, M. Bauer, U. V. Amerstorfer, R. L. Bailey, A. J. Weiss, J. A. Davies, L. A. Barnard, M. J. Owens, Why are ELEvoHI CME arrival predictions different if based on STEREO-A or STEREO-B heliospheric imager observations?, *Space Weather*, 19, 3, e2020SW002674, 2021.  
<https://arxiv.org/abs/2102.07478> <https://doi.org/10.1029/2020SW002674>
81. Palmerio, E., E. K. J. Kilpua, O. Witasse, D. Barnes, B. Sanchez-Cano, A. J. Weiss, T. Nieves-Chinchilla, **C. Möstl**, L. K. Jian, M. Mierla, A. N. Zhukov, J. Guo, L. Rodriguez, P. J. Lowrance, A. Isavnin, L. Turc, Y. Futaaja, M. Holmström, CME Magnetic Structure and IMF Preconditioning Affecting SEP Transport, *Space Weather*, in press, 2021.  
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80. Allen, R. C., G. C. Ho, G. M. Mason, L. K. Jian, S. K. Vines, S. D. Bale, A. W. Case, M. E. Hill1, C. J. Joyce, J. C. Kasper, K. E. Korreck, D. M. Malaspina, D. J. McComas, R. McNutt, **C. Möstl**, D. Odstrcil, N. Raouafi1, and M. L. Stevens, A living catalog of stream interaction regions in the Parker Solar Probe era, *Astronomy & Astrophysics*, in press, 2021.  
<https://doi.org/10.1051/0004-6361/202039833>
79. Weiss, A.J., **C. Möstl**, T. Amerstorfer, M. A. Reiss, J. Hinterreiter, U. V. Amerstorfer, R.L. Bailey, Analysis of coronal mass ejection flux rope signatures using 3DCORE and approximate Bayesian Computation, *The Astrophysical Journal Supplement Series*, 252, 1, id. 9, 2021. <https://arxiv.org/abs/2009.00327> <https://doi.org/10.3847/1538-4365/abc9bd>
78. Amerstorfer, T., J. Hinterreiter, M. A. Reiss, **C. Möstl**, J. A. Davies, R. L. Bailey, A. J. Weiss, M. Dumbovic, M. Bauer, U. V. Amerstorfer, R. A. Harrison, Evaluation of CME Arrival Prediction Using Ensemble Modeling Based on Heliospheric Imaging Observations, *Space Weather*, 19, 1, article id. e02553, 2021. <https://arxiv.org/abs/2008.02576>  
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77. **Möstl, C.**, A. J. Weiss, R. L. Bailey, M. A. Reiss, U. V. Amerstorfer, T. Amerstorfer, J. Hinterreiter, M. Bauer, S. W. McIntosh, N. Lugaz, and D. Stansby, Prediction of the in situ coronal mass ejection rate for solar cycle 25: implications for Parker Solar Probe in situ observations, *The Astrophysical Journal*, 902, 2, 2020.  
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76. Barnes, D., J.A. Davies, R.A. Harrison, J.P. Byrne, C.H. Perry, V. Bothmer, J.P. Eastwood, P.T. Gallagher, E.K.J. Kilpua, **C. Möstl**, L. Rodriguez, A.P. Rouillard, D. Odstrcil, CMEs in the Heliosphere: III. A Statistical Analysis of the Kinematic Properties Derived from Stereoscopic Geometrical Modelling Techniques Applied to CMEs Detected in the Heliosphere from 2008 to 2014 by STEREO/HI-1, *Solar Physics*, 295, 11, 15, 2020.  
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