

Carolus J Schrijver

List of Publications by Year in descending order

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112
papers

14,876
citations

43973

48
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91712

69
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125
all docs

125
docs citations

125
times ranked

4265
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | The Atmospheric Imaging Assembly (AIA) on the Solar Dynamics Observatory (SDO). Solar Physics, 2012, 275, 17-40. | 1.0 | 3,385 |
| 2 | The Helioseismic and Magnetic Imager (HMI) Investigation for the Solar Dynamics Observatory (SDO). Solar Physics, 2012, 275, 207-227. | 1.0 | 1,677 |
| 3 | The Interface Region Imaging Spectrograph (IRIS). Solar Physics, 2014, 289, 2733-2779. | 1.0 | 948 |
| 4 | Coronal Loop Oscillations Observed with the Transition Region and Coronal Explorer. Astrophysical Journal, 1999, 520, 880-894. | 1.6 | 801 |
| 5 | Photospheric and heliospheric magnetic fields. Solar Physics, 2003, 212, 165-200. | 1.0 | 560 |
| 6 | Title is missing!. Solar Physics, 2002, 206, 99-132. | 1.0 | 344 |
| 7 | A CRITICAL ASSESSMENT OF NONLINEAR FORCE-FREE FIELD MODELING OF THE SOLAR CORONA FOR ACTIVE REGION 10953. Astrophysical Journal, 2009, 696, 1780-1791. | 1.6 | 318 |
| 8 | Sustaining the Quiet Photospheric Network: The Balance of Flux Emergence, Fragmentation, Merging, and Cancellation. Astrophysical Journal, 1997, 487, 424-436. | 1.6 | 303 |
| 9 | Time Variability of the "Quiet" Sun Observed with TRACE. II. Physical Parameters, Temperature Evolution, and Energetics of Extreme-Ultraviolet Nanoflares. Astrophysical Journal, 2000, 535, 1047-1065. | 1.6 | 291 |
| 10 | THE NATURE OF FLARE RIBBONS IN CORONAL NULL-POINT TOPOLOGY. Astrophysical Journal, 2009, 700, 559-578. | 1.6 | 288 |
| 11 | Nonlinear Force-Free Modeling of Coronal Magnetic Fields Part I: A Quantitative Comparison of Methods. Solar Physics, 2006, 235, 161-190. | 1.0 | 286 |
| 12 | A Characteristic Magnetic Field Pattern Associated with All Major Solar Flares and Its Use in Flare Forecasting. Astrophysical Journal, 2007, 655, L117-L120. | 1.6 | 259 |
| 13 | Understanding space weather to shield society: A global road map for 2015-2025 commissioned by COSPAR and ILWS. Advances in Space Research, 2015, 55, 2745-2807. | 1.2 | 256 |
| 14 | Nonlinear Force-free Field Modeling of a Solar Active Region around the Time of a Major Flare and Coronal Mass Ejection. Astrophysical Journal, 2008, 675, 1637-1644. | 1.6 | 254 |
| 15 | Title is missing!. Solar Physics, 2002, 206, 69-98. | 1.0 | 216 |
| 16 | THERMAL DIAGNOSTICS WITH THE ATMOSPHERIC IMAGING ASSEMBLY ON BOARD THE SOLAR DYNAMICS OBSERVATORY: A VALIDATED METHOD FOR DIFFERENTIAL EMISSION MEASURE INVERSIONS. Astrophysical Journal, 2015, 807, 143. | 1.6 | 201 |
| 17 | Relations between the photospheric magnetic field and the emission from the outer atmospheres of cool stars. I - The solar CA II K line core emission. Astrophysical Journal, 1989, 337, 964. | 1.6 | 188 |
| 18 | Nonlinear Force-Free Modeling of Coronal Magnetic Fields. II. Modeling a Filament Arcade and Simulated Chromospheric and Photospheric Vector Fields. Solar Physics, 2008, 247, 269-299. | 1.0 | 186 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Driving major solar flares and eruptions: A review. <i>Advances in Space Research</i> , 2009, 43, 739-755. | 1.2 | 173 |
| 20 | The Properties of Small Magnetic Regions on the Solar Surface and the Implications for the Solar Dynamo(s). <i>Astrophysical Journal</i> , 2003, 584, 1107-1119. | 1.6 | 169 |
| 21 | The standard flare model in three dimensions. <i>Astronomy and Astrophysics</i> , 2013, 549, A66. | 2.1 | 158 |
| 22 | THE 2011 FEBRUARY 15 X2 FLARE, RIBBONS, CORONAL FRONT, AND MASS EJECTION: INTERPRETING THE THREE-DIMENSIONAL VIEWS FROM THE <i>SOLAR DYNAMICS OBSERVATORY</i> AND <i>STEREO</i> GUIDED BY MAGNETOHYDRODYNAMIC FLUX-ROPE MODELING. <i>Astrophysical Journal</i> , 2011, 738, 167. | 1.6 | 156 |
| 23 | On the Formation of Polar Spots in Sun-like Stars. <i>Astrophysical Journal</i> , 2001, 551, 1099-1106. | 1.6 | 152 |
| 24 | CORONAL LOOP OSCILLATIONS OBSERVED WITH ATMOSPHERIC IMAGING ASSEMBLY KINK MODE WITH CROSS-SECTIONAL AND DENSITY OSCILLATIONS. <i>Astrophysical Journal</i> , 2011, 736, 102. | 1.6 | 150 |
| 25 | NEW SOLAR EXTREME-ULTRAVIOLET IRRADIANCE OBSERVATIONS DURING FLARES. <i>Astrophysical Journal</i> , 2011, 739, 59. | 1.6 | 144 |
| 26 | The Nonpotentiality of Active Region Coronal and the Dynamics of the Photospheric Magnetic Field. <i>Astrophysical Journal</i> , 2005, 628, 501-513. | 1.6 | 142 |
| 27 | Long-range magnetic couplings between solar flares and coronal mass ejections observed by SDO and STEREO. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a. | 3.3 | 142 |
| 28 | Estimating the frequency of extremely energetic solar events, based on solar, stellar, lunar, and terrestrial records. <i>Journal of Geophysical Research</i> , 2012, 117, . | 3.3 | 141 |
| 29 | Simulations of the Photospheric Magnetic Activity and Outer Atmospheric Radiative Losses of Cool Stars Based on Characteristics of the Solar Magnetic Field. <i>Astrophysical Journal</i> , 2001, 547, 475-490. | 1.6 | 138 |
| 30 | MAGNETIC PROPERTIES OF SOLAR ACTIVE REGIONS THAT GOVERN LARGE SOLAR FLARES AND ERUPTIONS. <i>Astrophysical Journal</i> , 2017, 834, 56. | 1.6 | 134 |
| 31 | What Is Missing from Our Understanding of Long-Term Solar and Heliospheric Activity?. <i>Astrophysical Journal</i> , 2002, 577, 1006-1012. | 1.6 | 134 |
| 32 | QUASI-PERIODIC FAST-MODE WAVE TRAINS WITHIN A GLOBAL EUV WAVE AND SEQUENTIAL TRANSVERSE OSCILLATIONS DETECTED BY <i>SDO</i> /AIA. <i>Astrophysical Journal</i> , 2012, 753, 52. | 1.6 | 131 |
| 33 | DIRECT IMAGING OF QUASI-PERIODIC FAST PROPAGATING WAVES OF $\sim 1/4 2000 \text{ km s}^{-1}$ IN THE LOW SOLAR CORONA BY THE <i>SOLAR DYNAMICS OBSERVATORY</i> ATMOSPHERIC IMAGING ASSEMBLY. <i>Astrophysical Journal Letters</i> , 2011, 736, L13. | 3.0 | 128 |
| 34 | The photospheric magnetic flux budget. <i>Solar Physics</i> , 1994, 150, 1-18. | 1.0 | 121 |
| 35 | LARGE-SCALE CORONAL PROPAGATING FRONTS IN SOLAR ERUPTIONS AS OBSERVED BY THE ATMOSPHERIC IMAGING ASSEMBLY ON BOARD THE <i>SOLAR DYNAMICS OBSERVATORY</i> AN ENSEMBLE STUDY. <i>Astrophysical Journal</i> , 2013, 776, 58. | 1.6 | 101 |
| 36 | The minimal solar activity in 2008-2009 and its implications for long-term climate modeling. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a. | 1.5 | 84 |

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|----|--|-----|-----------|
| 37 | Photometric and Thermal Cross-calibration of Solar EUV Instruments. <i>Solar Physics</i> , 2014, 289, 2377-2397. | 1.0 | 79 |
| 38 | THE INFLUENCE OF SPATIAL RESOLUTION ON NONLINEAR FORCE-FREE MODELING. <i>Astrophysical Journal</i> , 2015, 811, 107. | 1.6 | 78 |
| 39 | A survey of customers of space weather information. <i>Space Weather</i> , 2013, 11, 529-541. | 1.3 | 69 |
| 40 | The Characteristics of Solar X-Class Flares and CMEs: A Paradigm for Stellar Superflares and Eruptions?. <i>Solar Physics</i> , 2016, 291, 1761-1782. | 1.0 | 69 |
| 41 | Assessing the impact of space weather on the electric power grid based on insurance claims for industrial electrical equipment. <i>Space Weather</i> , 2014, 12, 487-498. | 1.3 | 64 |
| 42 | The Global Solar Magnetic Field Through a Full Sunspot Cycle: Observations and Model Results. <i>Solar Physics</i> , 2008, 252, 19-31. | 1.0 | 63 |
| 43 | Extreme solar events. <i>Living Reviews in Solar Physics</i> , 2022, 19, 1. | 7.8 | 60 |
| 44 | USING CORONAL LOOPS TO RECONSTRUCT THE MAGNETIC FIELD OF AN ACTIVE REGION BEFORE AND AFTER A MAJOR FLARE. <i>Astrophysical Journal</i> , 2014, 783, 102. | 1.6 | 57 |
| 45 | Probing the Solar Magnetic Field with a Sun-Grazing Comet. <i>Science</i> , 2013, 340, 1196-1199. | 6.0 | 55 |
| 46 | GUIDING NONLINEAR FORCE-FREE MODELING USING CORONAL OBSERVATIONS: FIRST RESULTS USING A QUASI-GRAD-RUBIN SCHEME. <i>Astrophysical Journal</i> , 2012, 756, 153. | 1.6 | 54 |
| 47 | The Dependence of Ephemeral Region Emergence on Local Flux Imbalance. <i>Astrophysical Journal</i> , 2008, 678, 541-548. | 1.6 | 52 |
| 48 | PATHWAYS OF LARGE-SCALE MAGNETIC COUPLINGS BETWEEN SOLAR CORONAL EVENTS. <i>Astrophysical Journal</i> , 2013, 773, 93. | 1.6 | 50 |
| 49 | Bright Hot Impacts by Erupted Fragments Falling Back on the Sun: A Template for Stellar Accretion. <i>Science</i> , 2013, 341, 251-253. | 6.0 | 47 |
| 50 | A NUMERICAL STUDY OF LONG-RANGE MAGNETIC IMPACTS DURING CORONAL MASS EJECTIONS. <i>Astrophysical Journal</i> , 2016, 820, 16. | 1.6 | 41 |
| 51 | Socio-economic Hazards and Impacts of Space Weather: The Important Range Between Mild and Extreme. <i>Space Weather</i> , 2015, 13, 524-528. | 1.3 | 37 |
| 52 | Asterospheric Magnetic Fields and Winds of Cool Stars. <i>Astrophysical Journal</i> , 2003, 590, 493-501. | 1.6 | 34 |
| 53 | Destruction of Sun-Grazing Comet C/2011 N3 (SOHO) Within the Low Solar Corona. <i>Science</i> , 2012, 335, 324-328. | 6.0 | 30 |
| 54 | THE NONPOTENTIALITY OF CORONAE OF SOLAR ACTIVE REGIONS, THE DYNAMICS OF THE SURFACE MAGNETIC FIELD, AND THE POTENTIAL FOR LARGE FLARES. <i>Astrophysical Journal</i> , 2016, 820, 103. | 1.6 | 29 |

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| 55 | Models of coronal mass ejections and flares. , 2010, , 159-192. | | 26 |
| 56 | Disturbances in the US electric grid associated with geomagnetic activity. Journal of Space Weather and Space Climate, 2013, 3, A19. | 1.1 | 25 |
| 57 | ERUPTIONS FROM SOLAR EPHEMERAL REGIONS AS AN EXTENSION OF THE SIZE DISTRIBUTION OF CORONAL MASS EJECTIONS. Astrophysical Journal, 2010, 710, 1480-1485. | 1.6 | 24 |
| 58 | Comets as solar probes. Physics Today, 2013, 66, 27-32. | 0.3 | 22 |
| 59 | BRIGHT HOT IMPACTS BY ERUPTED FRAGMENTS FALLING BACK ON THE SUN: UV REDSHIFTS IN STELLAR ACCRETION. Astrophysical Journal Letters, 2014, 797, L5. | 3.0 | 22 |
| 60 | Sun-as-a-star Spectral Irradiance Observations of Transiting Active Regions. Astrophysical Journal, 2020, 902, 36. | 1.6 | 22 |
| 61 | The Heating of Cool Star Coronae: From Individual Loops to Global Flux Scalings. Astrophysical Journal, 2005, 619, 1077-1083. | 1.6 | 17 |
| 62 | On Connecting the Dynamics of the Chromosphere and Transition Region with Hinode SOT and EIS. Publication of the Astronomical Society of Japan, 2007, 59, S699-S706. | 1.0 | 16 |
| 63 | Solar spectral irradiance: measurements and models. , 2010, , 269-298. | | 14 |
| 64 | Space Weather From Explosions on the Sun: How Bad Could It Be?. Eos, 2014, 95, 201-202. | 0.1 | 12 |
| 65 | Coronal Mass Ejections and Dimmings: A Comparative Study Using MHD Simulations and SDO Observations. Astrophysical Journal, 2022, 928, 154. | 1.6 | 12 |
| 66 | A Statistical Study of Distant Consequences of Large Solar Energetic Events. Solar Physics, 2015, 290, 2943-2950. | 1.0 | 11 |
| 67 | Testing the Solar Activity Paradigm in the Context of Exoplanet Transits. Astrophysical Journal, 2020, 890, 121. | 1.6 | 10 |
| 68 | Blind Stereoscopy of the Coronal Magnetic Field. Solar Physics, 2015, 290, 2765-2789. | 1.0 | 9 |
| 69 | Coronal dimming as a proxy for stellar coronal mass ejections. Proceedings of the International Astronomical Union, 2019, 15, 426-432. | 0.0 | 8 |
| 70 | Energetic particle transport. , 0, , 233-262. | | 7 |
| 71 | Observations of solar and stellar eruptions, flares, and jets. , 2010, , 123-158. | | 7 |
| 72 | Flares, coronal mass ejections, and atmospheric responses. , 0, , 321-358. | | 6 |

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| 73 | Heliophysics with radio scintillation and occultation. , 0, , 289-326. | | 5 |
| 74 | Energy conversion in planetary magnetospheres. , 0, , 263-292. | | 4 |
| 75 | Publication Statistics on the Sun and the Heliosphere. Solar Physics, 2016, 291, 1267-1272. | 1.0 | 4 |
| 76 | Particle acceleration in shocks. , 0, , 209-232. | | 3 |
| 77 | COMMISSION 10: SOLAR ACTIVITY. Proceedings of the International Astronomical Union, 2011, 7, 69-80. | 0.0 | 3 |
| 78 | Solar explosive activity throughout the evolution of the solar system. , 0, , 23-55. | | 3 |
| 79 | Planetary habitability on astronomical time scales. , 0, , 79-98. | | 2 |
| 80 | Terrestrial ionospheres. , 2010, , 351-362. | | 2 |
| 81 | <i>In-situ</i> detection of energetic particles. , 2010, , 43-78. | | 2 |
| 82 | Energetic particles and manned spaceflight. , 2010, , 359-380. | | 2 |
| 83 | Energetic particles and technology. , 2010, , 381-400. | | 2 |
| 84 | Radiative signatures of energetic particles. , 2010, , 79-122. | | 2 |
| 85 | Climates of terrestrial planets. , 0, , 147-174. | | 2 |
| 86 | Aeronomy of terrestrial upper atmospheres. , 0, , 201-225. | | 2 |
| 87 | The structure and evolution of the three-dimensional solar wind. , 0, , 217-242. | | 1 |
| 88 | Perspective on heliophysics. , 2010, , 1-14. | | 1 |
| 89 | Introduction to space storms and radiation. , 2010, , 15-42. | | 1 |
| 90 | The heliosphere and cosmic rays. , 2010, , 243-268. | | 1 |

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| 91 | Shocks in heliophysics. , 0, , 193-208. | | 1 |
| 92 | Interconnectedness in heliophysics. , 0, , 1-10. | | 0 |
| 93 | Long-term evolution of magnetic activity of Sun-like stars. , 0, , 11-48. | | 0 |
| 94 | Formation and early evolution of stars and protoplanetary disks. , 0, , 49-78. | | 0 |
| 95 | Modeling solar and stellar dynamos. , 0, , 141-178. | | 0 |
| 96 | Planetary fields and dynamos. , 0, , 179-216. | | 0 |
| 97 | Astrophysical influences on planetary climate systems. , 0, , 299-332. | | 0 |
| 98 | Assessing the Sun's climate relationship in paleoclimate records. , 0, , 333-350. | | 0 |
| 99 | Long-term evolution of the geospace climate. , 0, , 363-388. | | 0 |
| 100 | Energization of trapped particles. , 0, , 293-320. | | 0 |
| 101 | Solar variability, climate, and atmospheric photochemistry. , 0, , 425-448. | | 0 |
| 102 | Waves and transport processes in atmospheres and oceans. , 0, , 389-424. | | 0 |
| 103 | Solar internal flows and dynamo action. , 0, , 99-140. | | 0 |
| 104 | Effects of stellar eruptions throughout astrospheres. , 0, , 80-103. | | 0 |
| 105 | Characteristics of planetary systems. , 0, , 104-125. | | 0 |
| 106 | Planetary dynamos: updates and new frontiers. , 0, , 126-146. | | 0 |
| 107 | Upper atmospheres of the giant planets. , 0, , 175-200. | | 0 |
| 108 | Moons, asteroids, and comets interacting with their surroundings. , 0, , 226-250. | | 0 |

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|-----|---|----|-----------|
| 109 | Dusty plasmas. , 0, , 251-269. | | 0 |
| 110 | Energetic-particle environments in the solar system. , 0, , 270-288. | | 0 |
| 111 | Authors and editors. , 0, , 327-328. | | 0 |
| 112 | Astrospheres, stellar winds, and the interstellar medium. , 0, , 56-79. | | 0 |