

Outstanding Paper Award for Young Scientists 2020

43rd COSPAR Scientific Assembly Sydney, Australia, 28 January – 4 February 2021

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| COSPAR Scientific Commission A | <p>Wenyan Ge (China)</p> <p><i>Lithological discrimination using ASTER and Sentinel-2A in the Shibanjing ophiolite complex of Beishan orogenic in Inner Mongolia, China</i> ASR 62/7</p> |
| | <p>Pawel Hordyniec (Poland)</p> <p><i>Simulation of liquid water and ice contributions to bending angle profiles in the radio occultation technique</i> ASR 62/5</p> |
| | <p>Merlin Christopher Köhnke (Germany)</p> <p><i>Observation of a 27-day solar signature in noctilucent cloud altitude</i> ASR 61/10</p> |
| | <p>Günther March (The Netherlands)</p> <p><i>High-fidelity geometry models for improving the consistency of CHAMP, GRACE, GOCE and Swarm thermospheric density data sets</i> ASR 63/1</p> |
| | <p>Matthias Raynal (France)</p> <p><i>From conventional to Delay Doppler altimetry: A demonstration of continuity and improvements with the Cryosat-2 mission</i> ASR 62/6</p> |
| | <p>Xiaolei Wang (China)</p> <p><i>Azimuth selection for sea level measurements using geodetic GPS receivers</i> ASR 61/6</p> |
| COSPAR Scientific Commission B | <p>Danielle M. DeLatte (USA)</p> <p><i>Automated crater detection algorithms from a machine learning perspective in the convolutional neural network era</i> ASR 64/8</p> |
| | <p>Yongchao Zhu (China)</p> <p><i>Analysis of the brightness temperature features of the lunar surface using 37 GHz channel data from the Chang'E-2 microwave radiometer</i> ASR 63/1</p> |

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| COSPAR Scientific Commission C | <p>Ronny Badeke (Germany)</p> <p><i>Empirical forecast of quiet time ionospheric Total Electron Content maps over Europe</i> ASR 61/12</p> |
| | <p>Stefan Gohl (Czech Republic)</p> <p><i>Study of the radiation fields in LEO with the Space Application of Timepix Radiation Monitor (SATRAM)</i> ASR 63/5</p> |
| | <p>Günther March (The Netherlands)</p> <p><i>CHAMP and GOCE thermospheric wind characterization with improved gas-surface interactions modelling</i> ASR 64/6</p> |
| | <p>Tim Visser (The Netherlands)</p> <p><i>Horizontal and vertical thermospheric cross-wind from GOCE linear and angular accelerations</i> ASR 63/10</p> |
| | <p>Ningbo Wang (China)</p> <p><i>Refinement of global ionospheric coefficients for GNSS applications: Methodology and results</i> ASR 63/1</p> |
| COSPAR Scientific Commission D | <p>Jordan Lasuik (Canada)</p> <p><i>The influence of non-Gaussian distribution functions on the time-dependent perpendicular transport of energetic particles</i> ASR 61/11</p> |
| | <p>Katlego Daniel Moloto (South Africa)</p> <p><i>Numerical integration of stochastic differential equations: A parallel cosmic ray modulation implementation on Africa's fastest computer</i> ASR 63/1</p> |
| COSPAR Scientific Commission E | <p>Weiwei Xu (China)</p> <p><i>Distinctive properties of cosmic-ray positron and electron fluxes measured by AMS on ISS</i> ASR 64/12</p> |
| COSPAR Scientific Commission F | <p>Frederico Kiffer (USA)</p> <p><i>Late effects of ¹H irradiation on hippocampal physiology</i> LSSR 17</p> |
| | <p>Krishna Luitel (USA)</p> <p><i>Proton radiation-induced cancer progression</i> LSSR 19</p> |

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| COSPAR Scientific Commission G | <p>Giuseppe Prete (Italy)</p> <p><i>Influence of the transport regime on the energetic particle density profiles upstream and downstream of interplanetary shocks</i> ASR 63/8</p> |
| Panel on Potentially Environmentally Detrimental Activities in Space (PEDAS) | <p>Aleix Pinardell (The Netherlands)</p> <p><i>Ariane 5 GTO debris mitigation using natural perturbations</i> ASR 63/7</p> |
| | <p>François Sanson (The Netherlands)</p> <p><i>Noise estimation and probability of detection in non-resolved images: Application to space object observation</i> ASR 64/7</p> |
| Panel on Technical Problems Related to Scientific Ballooning (PSB) | <p>Kanika Garg (Sweden)</p> <p><i>Balloon ascent prediction: Comparative study of analytical, fuzzy and regression models</i> ASR 64/1</p> |
| Technical Panel on Satellite Dynamics (PSD) | <p>Hongru Chen (France)</p> <p><i>Lunar far side positioning enabled by a CubeSat system deployed in an Earth-Moon halo orbit</i> ASR 64/1</p> |
| | <p>Liang Fan (China)</p> <p><i>Dynamic modeling and modal parameters identification of satellite with large-scale membrane antenna</i> ASR 63/12</p> |
| | <p>Eva Jalabert (France)</p> <p><i>Analysis of South Atlantic Anomaly perturbations on Sentinel-3A Ultra Stable Oscillator. Impact on DORIS phase measurement and DORIS station positioning</i> ASR 62/1</p> |
| | <p>Chuang Liu (China)</p> <p><i>Robust fault tolerant nonfragile H_∞ attitude control for spacecraft via stochastically intermediate observer</i> ASR 62/9</p> |
| | <p>Liu Xin (China)</p> <p><i>A fast satellite selection algorithm with floating high cut-off elevation angle based on ADOP for instantaneous multi-GNSS single-frequency relative positioning</i> ASR 63/3</p> |
| <p>Tommaso Pino (Italy)</p> <p><i>Wrinkling analysis for small solar-photon sails: An experimental and analytic approach for trajectory design</i> ASR 63/11</p> | |

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| | <p>Aaron Jay Rosengren (USA)</p> <p><i>Dynamical cartography of Earth satellite orbits</i> ASR 63/1</p> |
| | <p>Crislaine Menezes da Silva (Brazil)</p> <p><i>Ionospheric scintillation impact on ambiguity resolution using ADOP in closed form</i> ASR 64/4</p> |
| | <p>Kui Zeng (China)</p> <p><i>Two-phase shaping approach to low-thrust trajectories design between coplanar orbits</i> ASR 62/3</p> |
| | <p>Rui Zhang (China)</p> <p><i>Impact of BDS-3 experimental satellites to BDS-2: Service area, precise products, precise positioning</i> ASR 62/4</p> |