

COLAGE XI - Scientific Program

Poster contributions

Session 1 - Solar Physics – Monday-Tuesday, 9:00-18:45

- 1) C. Mac Cormack, *Energy Input Flux in the Quiescent Solar Corona: Comparing Observations with the AWSOM Model*
- 2) M. V. Gutierrez, *Sun's impact on Earth using Halpha data*
- 3) D. G. Lloveras, *Temperature and Electron Density in the Inner Solar Corona: a Global Validation of the AWSOM Model with Observations*
- 4) K.F. Lopez, *Filament Eruption in the Active Region NOAA-1164 Observed by the Flare Motoring Telescope (FMT) on 2011 March 7*
- 5) M. M. Cassiano, *Precipitable water vapor and 212 GHz atmospheric optical depth correlation at El Leoncito site*
- 6) C.E. Navia, *Solar energetic particles observed at ground level: All Saints day's 2014*
- 7) M. E. Machado, *Lyman continuum emission in solar flares, new results and perspective*
- 8) A. Paez, *SEPs and turbulence regions from morphological features of coronal mass ejections-driven shocks*
- 9) C.H. Mandrini, *On the origin of the eruptive events of February 2011: Magnetic field evolution and low corona structure*
- 10) L. Leuzzi, *Building an homogeneous set of sunspot areas from the observatories of the SOON network*
- 11) L. Merenda, *Tracking a long duration active region: flux evolution and ejective aspects*
- 12) E. Zurbriggen, *Winking flux ropes after Moreton wave event*
- 13) C. Bustos, *Study of a flare and associated surge on solar active region NOAA 11476*
- 14) L. Taliashvili, *Observatorio Astronómico de San José (OAS), Universidad de Costa Rica*
- 15) F. C. R. Fernandes, *Wavelet analysis of metric solar bursts and parameters of active regions by an analog RLC model*
- 16) Z. A. L. Sodr e, *Analysis of photospheric magnetic fields reorganization and metric noise storm recorded in August, 12, 2012*
- 17) F. Hasheminasab, *Oscillations of a Giant Bright Vortex Structure*
- 18) M. Anzorena, *Search for solar neutrons using SciCRT*
- 19) F. M. L pez, *Determination of CME masses from the analysis of EUV dimmings*
- 20) H. Cremades, *Expansion of coronal mass ejections from the low corona and beyond*
- 21) D. Cornejo Espinoza, *Atmospheric opacity at 212 and 405 GHz at the CASLEO site*
- 22) M.A.U. Cintra, *Studying the Stochasticity of Type I Solar Storms with Gradient Spectra*
- 23) M. L. Luoni, *EUV waves associated to the 14 February 2011 flare and coronal mass ejection*

- 24) J.G.Anca Ccopa, *Estimation of the energy released during solar flares observed by the e-CALLISTO spectrometer*
- 25) C. Mac Cormack, *Scaling laws of quiet-Sun coronal loops*
- 26) I. Cabello, *Configuration of a coronal mass ejection from birth and throughout the inner heliosphere*
- 27) A. M. Vásquez, *Multi-wavelength tomography of the global solar corona: present and future*
- 28) G. Giménez de Castro, *The Active Region 12673 X9 flare observed from submillimeter to mid-IR*
- 29) M. Poisson, *Joy's Law determination for emerging active regions*
- 30) F. Menezes, *Solar Radius at Subterahertz Frequencies and its Relation to Solar Activity*
- 31) L. F. Morales, *The Lu & Hamilton Solar Flare model revisited: clustering properties*
- 32) F. Tapia-Vasquez, *Non-Linear Convergence of Solar-like Stars Atmospheres using Semi-Empirical Models of the Solar Chromosphere*
- 33) F. Iglesias, *The third science flight of the SUNRISE balloon-borne solar observatory*
- 34) P. Larocca, *Study of the effects of solar activity on the average values of monthly rainfall measured from different stations located in mid-latitudes in both hemispheres.*
- 35) F. Manini, *Image pre-processing techniques for the new 30 THz infrared telescope*
- 36) A. Minero-Garfias, *Magnetic flux emergence and solar activity in an active region cluster*

Session 2 - Solar Wind - Monday-Tuesday, 9:00-18:45

- 1) B. Zenteno, *On the dispersion properties of Kinetic Alfvén Waves in the Solar Wind*
- 2) A. Ojeda-González, *Comparative study between four methods to calculate entropy in the interplanetary magnetic field components*
- 3) J. P. Marchezi, *Behavior of the ULF mean power spectral density on the electron flux variation related to CME and HSS structures during the Van Allen Probes era*
- 4) G. L. Flores Ivaldi, *North Atlantic Oscillation variability linked to the auroral electrojet index, AE*
- 5) S. Taran, *Anisotropic Distribution Functions for Electron and Proton in Two Fluid Solar Wind Model*
- 6) P. A. Reyes-Marín, *Study of the diffraction pattern of interplanetary scintillation at 140 MHz to identify solar wind speed*
- 7) C.A. Perez-Alanis, *Mean shape of interplanetary shocks deduced from in situ observations*
- 8) E. Aguilar-Rodriguez, *Micro-turbulence alpha parameter behaviour in nominal and CME-related solar wind using IPS observations*

Session 3 - Planetary Magnetospheres - Monday-Tuesday, 9:00-18:45

- 1) F. Bagenal, *Juno Mission to Jupiter's Giant Magnetosphere*
- 2) R. Pinares Vásquez, *Determination of the rotation period of the Karin family of asteroids*

- 3) M. Bravo, *Geomagnetic and ionospheric response to SC on March 17, 2015, as observed by magnetometers and GPS/TEC technique*
- 4) L. A. Da Silva, *Radial diffusion driven by ULF waves during rapid dropout in the outer radiation belt after Coronal Mass Ejection*
- 5) I. Gallo, *Study on the polarization and stability of Kinetic Alfvén Waves in the Earth's magnetosphere*
- 6) F.P. Magalhães, *Low frequency variations of Jovian radio emissions observed by Cassini*
- 7) N. Romanelli, *Effects of the Crustal Magnetic Fields and Changes in the IMF Orientation on the Magnetosphere of Mars: MAVEN Observations and LatHyS Results*
- 8) A. Marques de Souza Franco, *A Statistical Study of Correlation Length Around Venus*

Session 4 - Cosmic Rays - Monday-Tuesday, 9:00-18:45

- 1) F. Navarro, *Earthquake Studies Using a LAGO Water Cherenkov Detector in Ecuador*
- 2) D. Sapundjiev, *Cosmic ray cutoff rigidity estimations based on the World Magnetic Model*
- 3) R. R. S. de Mendonça, *Analysis of the solar cycle modulation in the cosmic ray intensity observed at South America in the last decade*
- 4) S. Hernández-Anaya, *Variations in the Secondary Component of Cosmic Rays, Detected by the Cosmic Ray Observatory of Mexico City Attributed to Geomagnetic Storms*
- 5) N. Guarin, *Simulation of Water Cherenkov Detector for neutron detection using Geant4*
- 6) R. García, *Identification of particles by energy loss per unit path length in the SciBar Cosmic Ray Telescope SciCRT*
- 7) D. Cazar, *Earthquake Studies Using a LAGO Water Cherenkov Detector in Ecuador*
- 8) B. J. Newton Bosch, *Secondary cosmic ray variations measured by the Mexico City Neutron Monitor attributed to atmospheric electric fields*
- 9) G. Barón Martínez, *Stability analysis of the neutral particles detected by the Solar Neutron Telescope in Sierra Negra, Mexico*
- 10) W. Portugal, *A statistical study about the effects of Forbush Decrease events on latitudinal temperature of the near-ground air*
- 11) S. Perea, *Variations in the flux of cosmic rays detected by the Solar Neutron Telescope at Sierra Negra attributed to geomagnetic storms*

Session 5 - Ionosphere and the Upper Atmosphere - Thursday-Friday, 9:00-18:45

- 1) A. Volk, *Cross-validation between the La Plata Ionospheric Model (LPIM) and the JASON satellite mission*
- 2) P. Essien, *Seasonal Characteristics of Small- and Medium-Scale Gravity Waves in the Mesosphere and Lower Thermosphere Region over Brazilian Equatorial Sector*
- 3) C. A. O. B. Figueiredo, *Investigation of nighttime mstids observed by optical thermosphere imagers at low latitude: morphology, propagation direction, and wind filtering*

- 4) A. A. S. Magalhães, *First Evidence of the Effects of the South Atlantic Magnetic Anomaly on the quiescent reference height of the lower ionosphere D-region*
- 5) D. Blagoveshchensky, *The impact of geomagnetic storm of September 7-8, 2017 on high and mid latitude ionosphere*
- 6) E. Perez Macho, *Ionospheric response to the geomagnetic disturbances of 21 and 22 June 2015 in the south American sector*
- 7) V. J. Gatica-Acevedo, *Analysis of systematic ionosphere variations over Mexico based on GPS data*
- 8) S. Palit, *Response of earth's upper atmosphere to hard X-ray ionization: Investigation with SGR X-ray bursts as ionization impulses*
- 9) D. Janches, *Gravity Waves studies throughout the atmosphere in the lee of the Southern Andes*
- 10) L. M. Lima, *Interannual variability on tides from meteor winds at 22.7°S*
- 11) M. T. A. H. Muella, *Climatology and modeling of quiet-time and storm-time ionospheric scintillations and irregularity zonal drifts at the equatorial anomaly crest region*
- 12) D. Barros, *Characteristics of Equatorial Plasma bubbles observed by TEC map over South America and numerical simulation of its development*
- 13) O. Dare-Idowu, *Reverse ray-tracing to investigate likely sources of gravity waves observed in Brazil*
- 14) F. Chingarandi, *Determination of the horizontal wind by observing quasi-orthogonal gravity waves*
- 15) E. Ogobor, *Observation of mesospheric bore in low latitudes over Brazil*
- 16) D. Pérez Bello, *Vertical Total Electron Content forecast model over Argentina*
- 17) Inez S. Batista, *An overview of F3 layer occurrence during quiet and disturbed periods*
- 18) P. Muralikrishna, *A new compact and low cost Langmuir Probe and associated onboard data handling system for CubeSat*
- 19) F. Azpilicueta, *TEC over a single station studied with PCA*
- 20) A. Meza, *Variation of geomagnetic field and tec at mid latitudes*
- 21) M.P. Natali, *VTEC climatology at midlatitudes using PCA*
- 22) A. Glocer, *Global Modeling of Ionospheric Outflow*
- 23) J. Samanes, *Study of the nighttime lower ionosphere by using VLF signals*
- 24) C. Candido, *Ionospheric response to a recurrent magnetic storm during an event of High Speed Stream in October 2016*
- 25) R. López-Montes, *Spatial weather and its impact on geophysical studies in the northeast of Mexico*
- 26) I. Bibbó, *Global ionospheric and plasmaspheric vTEC maps based on combined GNSS and TOPEX/Jason measurements*
- 27) P. Fernández de Campra, *Stratospheric Temperature Behavior in the Southern Hemisphere*
- 28) J. M. Lopez, *Electron density at 600 km of altitude. Measurements and NeQuick2 predictions*
- 29) C.B.A. Oliveira, *An alternative TEC map tool for the ionospheric investigation over the Latin America region*
- 30) C. A. Padula Villagra, *Searching solar effects on the precipitation over a Northwestern Argentina location*

- 31) H. R. Peixoto Jácome, *The effects of geomagnetic storm occurred in April of 2000 on the polar and equatorial ionosphere*
- 32) A. R. Paulino, *Observation of the lunar tide in the ionosphere over Brazil*
- 33) B. S. Zossi, *Ionospheric conductivity height profile and conductance spatial distribution changes due to Earth magnetic field variations*
- 34) V. Klausner, *Study of the effects on the geomagnetic field during the maule tsunami using four spatiotemporal methods*
- 35) A. Prestes, *Araucaria growth response to solar and climate variability in southern Brazil*
- 36) C. S. Carmo, *Comparison between different tec calculation techniques to characterize the ionosphere in the brazilian sector*
- 37) M. Fagre, *Analysis of the Effect of Electron Density Perturbations Generated by Gravity Waves on HF Communication Links*
- 38) D. D. Moraes, *Quiet Day Curve (QDC) analysis using detectability of radar signals applied to Embrace Magnetometer data*
- 39) A. T. Concha Álvarez Prado, *On the effects of the Earth's magnetic field variation over ionospheric Cowling conductivity*
- 40) A. V. Bilibio, *Medium-Scale Gravity Waves observed in the airglow over Cachoeira Paulista*
- 41) F.C. Santos, *Occurrence and Simulation of Sporadic E Layers near the Equatorial Ionization and South Atlantic Magnetic Anomalies*
- 42) F.C. Santos, *Study about the Downward Movement of Sporadic E Layers using a Theoretical Model around the Equatorial Ionization Anomaly*
- 43) S. A. Sánchez, *Possible limits on detectable ionospheric disturbances induced by seismic activities in South America*
- 44) P. Prado Batista, *Long-term temperature trends in the 35-65 km range by Rayleigh Lidar measurements at 23 S from 1993 to 2016 and comparison with SABER from 2004 to 2016*
- 45) Yu. Yasyukevich, *Phase and amplitude GPS/GLONASS scintillation in Siberia region*
- 46) F. Monterde, *Start-up and calibration of atmospheric electric field monitoring equipment and first data analysis*
- 47) E.A. Kherani, *Geospheric pulsations during moderate Seismic activities*
- 48) P. R. Fagundes, *Multi-scale ionospheric irregularities occurrence over South America during the St. Patrick's Storm on March 17, 2015*
- 49) G. González, *Variability of foF2 in Tucumán for high and low solar activity and comparison with the IRI-2016 model*
- 50) E. Romero-Hernandez, *Ionospheric TECclimatology over the Latin America*
- 51) G. A. S. Picanço, *Influence of the Temporal Resolution of averaged TEC values on the accuracy of the Disturbance Ionosphere Index*
- 52) T. O. Bertolotto, *Response of the Equatorial and Low-latitude Ionosphere to Solar Flare Events during the Descending Phase of Solar Cycle 24*

- 53) E. R. Reisin, *Upper atmospheric tides from airglow observations at El Leoncito, Argentina*
- 54) D. Scipión, *MLT winds estimations obtained from specular and non-specular meteor trails at Jicamarca*
- 55) O. S. Lomotey, *Study on Planetary Wave Propagation in the Lower Thermosphere and its response to ionospheric layer in the Brazilian Equatorial Region*
- 56) A.J. de Abreu, *Analysis of the positive and negative ionospheric response to an intense geomagnetic storm over Brazilian sector using total electron content data*
- 57) P. Sierra, *Estado actual de la relación entre eventos sísmicos y la Resonancia Schumann. Exploración en México*
- 58) E. Correia, *Characterization of the ionospheric scintillation from high to low latitude in the South American sector - DemoGRAPE*
- 59) G. Campos Damasceno, *Multi-instrument observations of the ionospheric response to the 7 September 2017 geomagnetic storm in the South American Sector*
- 60) Luciana R. Araújo, *Quasi-two-day wave variability in the Southern MLT low latitude during austral summer and winter*
- 61) A. Cardenas, *Impact of ionospheric currents during magnetic sub storms on Latin American and its effects on GNSS signals*

Session 6 - Plasma Physics and Nonlinear Processes in Space Geophysics - Monday-Tuesday, 9:00-18:45

- 1) R. Lugones, *On the spatio-temporal behavior of magnetohydrodynamic turbulence in a magnetized plasma II*
- 2) J. M. N. de J. Luz, *Particle-in-cell simulations of satellite surface charging in the solar wind*
- 3) Tiago Francisco Pinheiro Gomes, *The role of current sheets on the statistical modelling of extreme events for spatial-time series in the solar wind*
- 4) A. N. Laurindo Sousa, *Four new analytical solutions of the Equilibrium Ampere's law using the Walker's Method*
- 5) Neelakshee I. Joshi, *Multifractal Analysis of Ionospheric Transition Region*
- 6) Mauro Fontana, *1/f noise in spherical dynamo simulations*
- 7) J. J. González-Avilés, *Development of a Magnetohydrodynamic (MHD) model in Non-Local Thermodynamic Equilibrium (NLTE) to study the upper solar atmosphere*
- 8) N. Falcon, *Thermal and diffusion Instability in Astrophysical Plasmas before relaxation*

Session 7 - Space Weather - Thursday-Friday, 9:00-18:45

- 1) Ramon Caraballo, *Benchmarking gic estimates at low latitudes using high temporal resolution data: pros and cons*
- 2) Asheesh Bhargawa, *An early prediction of 25th solar cycle*
- 3) Abhay Verma, *Repercussions of Solar Energetic Protons on Ozone Layer during Intense Geomagnetic Storms - A Case Study*

- 4) Espinosa, *Estimate of the amplitude of geomagnetically induced currents (gic) at different places in Brazil during magnetic storms occurred in the year 2015*
- 5) L. Trichtchenko, *Towards forecasting of GIC in power grid*
- 6) Denardini, *The Embrace Magnetometer Network for South America: Network Description and Firsts Results*
- 8) V. E. López, *The climatology of the height temperature profile at tropospheric and stratospheric levels at the Argentinean Marambio station in the Antarctic Peninsula has been assessed*
- 9) A. Piassi, *Analysis of Pc3 and Pc4 magnetic pulsations in the South Atlantic Magnetic Anomaly region*
- 10) M. E. Muñoz Sanchez, *Study of disturbances in the interplanetary medium and its geoeffectivity using local data*
- 11) P. Corona-Romero, *Space Weather on Mexico: the geomagnetic Kmex index*
- 12) P. Corona-Romero, *SPARTOS: a forecasting tool for extreme space weather events*
- 13) A. Gonzalez-Esparza, *Mexican Observations of the Low Latitude Red Aurora During the 1859 Carrington Geomagnetic Storm*
- 14) P. F. Barbosa Neto, *First steps for deriving DIX Maps over South America*
- 15) V. De la Luz, *The Space Weather Supercomputing Center in Mexico (CESCOM)*
- 16) V. Gatica-Acevedo, *Analysis of systematic ionosphere variations over Mexico based on GPS data*
- 17) L. R. Alves, *Geomagnetically induced currents measured at low latitude during the space disturbances on 07-08 September, 2017*
- 18) E. Huipe-Domratcheva, *Detection of solar radio bursts in Mexico with Callisto and the IPS antenna MEXART*
- 19) R. R. Rosa, *Improving the Intensive Data Analysis in Space Science Using Heterogeneous Computing*
- 20) M. C. Damas, *Comparing Distribution Functions for Approximating Dst Variations during Geomagnetic Storms*
- 21) A. V. Bilibio, *Study for the qualification of the magnetic data used for deriving index K South American*
- 22) E. del Pozo García and Francisco González Vertía, *Evidences of GLE Occurrence by some Planetary*
- 23) Namour, Jorge, *Space Weather Monitoring: challenges in data management*
- 24) I.C.P. Lamin, *Criteria for Identifying High-Intensity, Long-Duration, Continuous AE Activity Events Modifying Some Parameters Based On Geomagnetic Indices: A Computational Algorithm*
- 25) S. Hernández-Anaya, *Variations in the Secondary Component of Cosmic Rays, Detected by the Cosmic Ray Observatory of Mexico City Attributed to Geomagnetic Storms*
- 26) G. A. Mansilla, *Composition changes during geomagnetic disturbances*
- 27) M. M. Zossi, *Geomagnetic storms effects over O₃ and NO_x in South Atlantic Magnetic Anomaly Zone*
- 28) V. Lanabere, *Extreme electron fluxes during Space Weather events in the radiation belts and South Atlantic Anomaly: Extreme value analysis using data from the Argentinean SAC-D spacecraft*
- 29) M.G. Molina, *Ionospheric response to the geomagnetic storm on 2nd October 2013: Longitudinal chain analysis over the American sector*
- 30) L. Balmaceda, *The Multi-viewpoint CME Catalog: properties of CMEs from different perspectives*

31) F. Flórez, *Space weather observatory in peru: portal web*

32) W. J. Miloch, *Effects of ionospheric irregularities on trans-ionospheric radio signals studied with the Swarm satellites and ground-based instruments*

33) M. Pazos, *Analisis of Schumann resonance station data in Mexico during geomagnetic events*