

## The Curriculum Vitae

Name: Dr. Tulasiram Sudarsanam  
Current Position: Professor-F, Indian Institute of Geomagnetism, India



### Address

Indian Institute of Geomagnetism (IIG)  
Plot No.5, Sector-18, Near Kalamboli Highway  
New Panvel, Navi Mumbai – 410 218, India  
Email: [tulasiram.s@iigm.res.in](mailto:tulasiram.s@iigm.res.in), [s.tulasiram@gmail.com](mailto:s.tulasiram@gmail.com)  
Ph: +91 22 2748 4187 Fax: +91 22 2748 0762  
Mob: 8693889996, 7021387015

Date of Birth: 02 June 1979

Nationality: Indian

### History of Employment

- **Professor-F**, Indian Institute of Geomagnetism (IIG), **India.** Jan. 2025 – Present
- **Chief Vigilance Officer** (part-time), Indian Institute of Geomagnetism, **India.** Jul 2024 - Present
- **Professor-E**, Indian Institute of Geomagnetism (IIG), **India.** Jan. 2020 – Dec. 2024
- **Associate Professor**, Indian Institute of Geomagnetism (IIG), **India.** Jan. 2016 – Dec. 2019
- **Reader**, Indian Institute of Geomagnetism (IIG), **India.** Nov. 2011 - Dec. 2015
- **JSPS Post-doctoral Fellow**, RISH, Kyoto University, **Japan.** Nov. 2010 – Nov. 2011
- **Post-doctoral Research Fellow**, Academia Sinica, Taipei, **Taiwan.** May 2008 – Nov. 2010

### Degrees

- **Ph. D.**, Andhra University, Visakhapatnam, **India.** Jan. 2004 - May 2008
- **M. Sc.**, Andhra University, Visakhapatnam, **India.** Jun. 2001 - Apr. 2003

Research Interests and Experience: Space Weather and Ionospheric dynamics by remote sensing the ionosphere, GNSS – Radio Occultation, Atmospheric coupling processes leading to Equatorial Spread-F (ESF) and Ionospheric irregularities, Geomagnetic storms, Solar Wind – Magnetosphere - Ionosphere-Thermosphere coupling processes, Modelling the ionosphere using Artificial Neural Networks.

Publications in SCI journals: **91** (GRL - 9, ApJ-1, SW-7, MNRAS-1, GPS. Sol-1, JGR - 39, Adv.Space.Res. - 10, Ann. Geophys. - 3, EPS - 2, PEPS - 2, EPP-2, J. Geodesy - 1, Rad. Sci.-3, JASTP-3, Geosci. Lett. - 1, RadioSci.Lett.-1, JMR - 1, IJRSP – 3, IJP-1)

Number of Citations: **2700+** (<https://scholar.google.co.in/citations?user=b6GMA48AAAAJ&hl=en>)

h-index: **31**

Ph.Ds Produced: 4 (Awarded) + 2 (Working)

Research Associates/Post-docs currently working - 2

### Awards/Honors/Recognitions

- **Convener** – ISWI-SCOSTEP International School on Space Weather, Jan 2026. India
- **Guest Editor** – Special issue on “SCOSTEP’s 15th Quadrennial Solar-Terrestrial Physics Symposium (STP-15) in Journal of Atmospheric Solar-Terrestrial Physics (<https://doi.org/10.1016/j.jastp.2024.106236>)
- **Convener** – 3<sup>rd</sup> International workshop on Equatorial Plasma Bubbles (EPB-3), Sep 2023, India.
- **Convener** - SCOSTEP’s 15<sup>th</sup> Quadrennial Solar-Terrestrial Physics (STP-15) symposium, Feb 2022, India.
- **Guest Editor** – Special issue on “Recent advances in the study of Equatorial Plasma Bubbles and Ionospheric Scintillation” for the Earth and Planetary Physics (doi: 10.26464/epp2021050)
- **Early Career Research Award** - Science and Engineering Research Board (SERB), Department of Science and Technology (DST), Govt. of India, 2018.
- **Finalist**, NASI - SCOPUS Young Scientist Award, Elsevier, 2017.
- **Associate Fellow**, Andhra Pradesh Academy of Sciences, India, 2017.

- **Best Thesis Award** – Prof. P. Tiruvengana Rao Shastriabdipoorthi prize in physics, Andhra University, 78<sup>th</sup> Convocation, June 2011.
- **JSPS Fellow** – Japan Society for Promotion of Science, Japan, 2010.
- **Geo-Host Award** – Indian Geophysical Union (IGU) – AOGS Annual Meeting 2010, Hyderabad, India, 5-9<sup>th</sup> July 2010.
- **URSI-Young Scientist Award** – International Union of Radio Science (URSI) – General Assembly 2008, Chicago, USA, 9-16<sup>th</sup> August 2008.

## List of publications in [SCI] Journals

- (1) Rai, D., **Tulasi Ram, S.**, Nilam, B., Oliveira, D. M., Remya, B., Raghav, A., et al., Dawn-side anomaly in sudden geomagnetic field responses to solar wind pressure discontinuities during the 10 May and 10 October 2024 geomagnetic storms. *Geophysical Research Letters*, 53, e2025GL119914. <https://doi.org/10.1029/2025GL119914>, **2026**.
- (2) Mondal, S., Guharay, A., **Tulasi Ram, S.**, Gurubaran, S., Sripathi, S., Naja, M., et al., [Post - midnight enhancement in OI630.0 nm airglow emission and plausible link to wave dynamics](#). *Journal of Geophysical Research: Space Physics*, 131, e2025JA034135. <https://doi.org/10.1029/2025JA034135>, **2026**.
- (3) Veenadhari, B., **Tulasi Ram, S.**, Mukherjee, S., Shah, T., Bhosale, N., and Dimri, A. P., [The role of solar wind dynamic pressure in determining the intensity of the geomagnetic storm](#). *Journal of Geophysical Research: Space Physics*, 130, e2025JA034324. <https://doi.org/10.1029/2025JA034324>, **2025**.
- (4) **Tulasi Ram, S.**, Rai, D., Nilam, B., Dimri, A. P., Gowtam, V. S., Raghav, A., et al. [Modeling of magnetic local time asymmetry in storm - time low - latitude geomagnetic field disturbances due to partial ring current](#). *Space Weather*, 23, e2025SW004381. <https://doi.org/10.1029/2025SW004381>, **2025**.
- (5) Ankita, M., and **S. Tulasi Ram**, [Response of the Low-Latitude Ionosphere to the May 10, 2024, Superstorm Over Ascension Island](#), *URSI Radio Science Letters*, 7, DOI: 10.46620/25-0003, **2025**.
- (6) Nilam, B., **Tulasi Ram, S.**, Oliveira, D. M., Remya, B., Shiokawa, K., Rai, D., et al. [Strong westward current pulse at auroral latitudes extending to dawn - side low - latitudes due to enhanced density within Kelvin - Helmholtz wave vortex in solar wind](#). *Geophysical Research Letters*, 52, e2025GL117032. <https://doi.org/10.1029/2025GL117032>, **2025**.
- (7) Ankita, M., **Tulasi Ram, S.**, Yokoyama, T., Tsunoda, R. T., Dimri, A. P., Mondal, S., & Nayak, C., [Satellite traces: Ionogram signatures of bottom - side upwelling structures - A simulation study](#). *Geophysical Research Letters*, 52, e2024GL114119. <https://doi.org/10.1029/2024GL114119>, **2025**.
- (8) Nayak, C., Buchert, S., Yiğit, E., Ankita, M., Singh, S., **Tulasi Ram, S.**, & Dimri, A. P., [Topside low-latitude ionospheric response to the 10–11 May 2024 super geomagnetic storm as observed by Swarm: The strongest storm-time super-fountain during the Swarm era?](#) *Journal of Geophysical Research: Space Physics*, 130, e2024JA033340. <https://doi.org/10.1029/2024JA033340>, **2025**.
- (9) **Tulasi Ram, S.**, Veenadhari, B., Dimri, A.P., Bulusu, J., Bagiya, M., Gurubaran, S., et al. Super - intense geomagnetic storm on 10–11 May 2024: Possible mechanisms and impacts. *Space Weather*, 22, e2024SW004126. <https://doi.org/10.1029/2024SW004126>, **2024**.
- (10) Ankita, M., and **S. Tulasi Ram**, A software tool for the true height analysis of ionograms using the Iterative Gradient Correction (IGC) method. *Radio Science*, 59, e2024RS007955. <https://doi.org/10.1029/2024RS007955>, **2024**.

- (11) **Tulasi Ram, S.**, Ankita, M., Nilam, B., Gurubaran, S., Nair, M., Seemala, G. K., Brahmanandam, P. S., Dimri, A. P., [Empirical model of Equatorial ElectroJet \(EEJ\) using long - term observations from the Indian sector.](#) *Space Weather*, 22, e2024SW003988, <https://doi.org/10.1029/2024SW003988>, **2024**.
- (12) Oliveira, D. M., Allen, R. C., Alves, L. R., Blake, S. P., Carter, B. A., Chakrabarty, D., et al. [Predicting interplanetary shock occurrence for solar cycle 25: Opportunities and challenges in space weather research.](#) *Space Weather*, 22, e2024SW003964. <https://doi.org/10.1029/2024SW003964>, **2024**.
- (13) Nilam, B., **Tulasi Ram, S.**, Oliveira, D. M., and Dimri, A. P., [Role of impact angle on equatorial electrojet \(EEJ\) response to interplanetary \(IP\) shocks.](#) *Journal of Geophysical Research: Space Physics*, 129, e2024JA032638. <https://doi.org/10.1029/2024JA032638>, **2024**.
- (14) Kazuo Shiokawa, Daniel Marsh, Duggirala Pallamraju, Spiros Patsourakos, Nick Pedatella, M. Venkat Ratnam, Eugene Rozanov, Nandita Srivastava, **S. Tulasi Ram**, Editorial on [Special Issue of SCOSTEP's 15th Quadrennial Solar-Terrestrial Physics Symposium \(STP-15\)](#), *Journal of Atmospheric and Solar-Terrestrial Physics*, 106236, <https://doi.org/10.1016/j.jastp.2024.106236>, **2024**.
- (15) Gowtam, V. S., Connor, H., Kunduri, B. S. R., Raeder, J., Laundal, K. M., **Tulasi Ram, S.**, et al. (2024). [Calculating the high-latitude ionospheric electrodynamics using a machine learning based field-aligned current model.](#) *Space Weather*, 22, e2023SW003683. <https://doi.org/10.1029/2023SW003683>, **2024**.
- (16) Balan, N., Qing-He Zhang, **S. Tulasi Ram**, K. Shiokawa and Zan-Yang Xing, [How to identify and forecast severe space weather events](#), *J. Atmos. Sol. Terr. Phys.*, (STP-15 Special Issue), <https://doi.org/10.1016/j.jastp.2024.106183>, **2024**.
- (17) Nilam, B., **S. Tulasi Ram**, M. Ankita, D. M. Oliveira, and A. P. Dimri. [Equatorial electrojet \(EEJ\) response to interplanetary \(IP\) shocks.](#) *Journal of Geophysical Research: Space Physics*, 128, e2023JA032010. <https://doi.org/10.1029/2023JA032010>, **2023**.
- (18) Ankita, M., and **S. Tulasi Ram**, [Iterative Gradient Correction \(IGC\) method for true height analysis of Ionograms](#), *Radio Science*, 58, e2023RS007808. <https://doi.org/10.1029/2023RS007808>, **2023**.
- (19) Ankita, M., **S. Tulasi Ram**, K.K. Ajith, and S. Sripathi, [Deep electron density depletion near sunset terminator on St. Patrick's Day storm and its impacts on Skywave propagation.](#) *Space Weather*, 21, e2022SW003369. <https://doi.org/10.1029/2022SW003369>, **2023**.
- (20) Nilam, B., and **S. Tulasi Ram**, [Large geomagnetically induced currents at equator caused by interplanetary magnetic cloud](#), *Space Weather*, doi:10.1029/2022SW003111, **2022**.
- (21) Nilam, B., and **S. Tulasi Ram**, [Forecasting Geomagnetic activity \(Dst Index\) using the ensemble Kalman Filter](#), *Mon. Not. Royal Astro. Soc.*, 511, 723 - 731, <https://doi.org/10.1093/mnras/stac099>, **2022**.
- (22) Otsuka, Y., Spogli, L., **S. Tulasi Ram**, and Li, G. Z., [Preface to the Special Issue on recent advances in the study of Equatorial Plasma Bubbles and Ionospheric Scintillation.](#) *Earth Planet. Phys.*, 5(5), 365–367. <http://doi.org/10.26464/epp2021050>, **2021**.
- (23) Balan, N., **S. Tulasi Ram**, Manu, V., Zhao, L., Xing, Z.-Y., & Zhang, Q.-H., [Diurnal UT Variation of low Latitude Geomagnetic Storms Using six Indices.](#) *J. Geophys. Res. Space Physics*, 126, e2020JA028854. <https://doi.org/10.1029/2020JA028854>, **2021**.

- (24) Ajith, K. K., **S. Tulasi Ram**, G. Z. Li, M. Yamamoto, K. Hozumi, C. Y. Yatini and P. Supnithi, [On the solar activity dependence of midnight equatorial plasma bubbles during June solstice periods](#), *Earth Planet. Phys.*, 5(4), 1–9. <http://doi.org/10.26464/epp2021039>, 2021.
- (25) V. Sai Gowtam, **S. Tulasi Ram** and M. Ankita, [An aided Abel inversion technique assisted by artificial neural network based background ionospheric model for near real-time correction of FORMOSAT-7/COSMIC-2 data](#), *Adv. Space Res.*, <https://doi.org/10.1016/j.asr.2021.05.008>, 2021.
- (26) Ajith, K. K., Li, G., **Tulasi Ram, S.**, Yamamoto, M., Hozumi, K., Abadi, P., & Xie, H., [On the seeding of periodic equatorial plasma bubbles by gravity waves associated with tropical cyclone: A case study.](#), *J. Geophys. Res. Space Physics*, 125, e2020JA028003, <https://doi.org/10.1029/2020JA028003>, 2020.
- (27) Kumar, S., B. Veenadhari, D. Chakrabarty, **S. Tulasi Ram**, T. Kikuchi, and Y. Miyoshi, [Effects of IMF By on ring current asymmetry under southward IMF Bz conditions observed at ground magnetic stations: Case studies](#), *J. Geophys. Res. Space Physics*, 125, e2019JA027493, <https://doi.org/10.1029/2019JA027493B>, 2020.
- (28) Nilam, B., **S. Tulasi Ram**, K. Shiokawa, N. Balan and Q. Zhang, [The solar wind density control on the Prompt Penetration electric Field and Equatorial Electrojet](#), *J. Geophys. Res. Space Physics*, 125, e2020JA027869, <https://doi.org/10.1029/2020JA027869>, 2020.
- (29) **Tulasi Ram, S.**, K. K. Ajith, T. Yokoyama, M. Yamamoto, K. Hozumi, K. Shiokawa, Y. Otsuka, and G. Li, [Dilatory and downward development of 3 - meter scale irregularities in the Funnel - like region of a rapidly rising Equatorial Plasma Bubble](#), *Geophysical Research Letters*, <https://doi.org/10.1029/2020GL087256>, 2020.
- (30) P. A. Inchin, J. B. Snively, M. D. Zettergren, A. Komjathy, O. P. Verkhoglyadova and **S. Tulasi Ram**, [Modelling of ionospheric responses to atmospheric acoustic and gravity waves driven by the 2015 Nepal Mw7.8 Gorkha Earthquake](#), *J. Geophys. Res. Space Physics*, 125, <https://doi.org/10.1029/2019JA027200>, 2020.
- (31) **Tulasi Ram, S.**, B. Nilam, N. Balan, Q. Zhang, K. Shiokawa, D. Chakrabarty, Z. Xing, K. Venkatesh, B. Veenadhari and A. Yoshikawa, [Three different episodes of prompt equatorial electric field perturbations under steady southward IMF Bz during St. Patrick's day storm](#), *J. Geophys. Res. Space Physics*, 124, <https://doi.org/10.1029/2019JA027069>, 2019.
- (32) N. Balan, Q. Zhang, Z. Xing, R. Skoug, K. Shiokawa, H. Luhr, **S. Tulasi Ram**, Y. Otsuka and L. Zhao, [Capability of Geomagnetic storm parameters to identify severe space weather](#), *Astrophysical Journal*, 887:51, <https://doi.org/10.3847/1538-4357/ab5113>, 2019.
- (33) N. Balan, Z. Zhang, K. Shiokawa, R. Skoug, Z. Xing, **S. Tulasi Ram**, Y. Otsuka, [IpsDst of Dst storms applied to ionosphere-thermosphere storms and low latitude aurora](#), *J. Geophys. Res. Space Physics*, 124, <https://doi.org/10.1029/2019JA027080>, 2019.
- (34) Sai Gowtam, V. S., J. Lei, **S. Tulasi Ram**, X. Luan, D. Ren, J. Zhong, [Variation of Equatorial Height Anomaly \(EHA\) during the main phase of 2015 St. Patrick's Day geomagnetic storm using ANNIM and TIEGCM](#), *J. Geophys. Res. Space Physics*, 124, <https://doi.org/10.1029/2019JA026703>, 2019.
- (35) G. Uma, P.S. Brahmanandam, V.K.D Srinivasu, D.S.V.V.D Prasad, V. Sai Gowtam, **S. Tulasi Ram**, Y.H. Chu, [Ionospheric responses to the 21 August 2017 great American solar eclipse - A multi-instrument study](#), *Adv. Space Res.*, <https://doi.org/10.1016/j.asr.2019.09.010>, 2019.

- (36) Venkatesh, K., A. K. Patra, N. Balan, P. R. Fagundes, **S. Tulasi Ram**, I. S. Batista, B. W. Reinisch, [Super-fountain effect linked with 17 March 2015 geomagnetic storm manifesting distinct F3 layer](#), *J. Geophys. Res. Space Physics*, 124, <https://doi.org/10.1029/2019JA026721>, 2019.
- (37) Sai Gowtam, V., **S. Tulasi Ram**, B. Reinisch, and A. Prajapati, [A new artificial neural network-based global three dimensional ionospheric model \(ANNIM-3D\) using long-term ionospheric observations: Preliminary results](#), *J. Geophys. Res. Space Physics*, 124, <https://doi.org/10.1029/2019JA026540>, 2019.
- (38) Brahmanandam, P. S., V. N. Kumar, G. A. Kumar, M. P. Rao, K. Samatha and **S. Tulasi Ram**, [A few important features of global atmospheric boundary layer heights estimated using COSMIC radio occultation retrieved data](#), *Indian J Phys.*, <https://doi.org/10.1007/s12648-019-01514-7>, 2019.
- (39) Veenadhari, B., T. Kikuchi, S. Kumar, **S. Tulasi Ram**, D. Chakrabarty, Y. Ebihara, G. D. Reeves, [Signatures of substorm related overshielding electric field at equatorial latitudes under steady southward IMF Bz during main phase of magnetic storm](#), *Adv. Space Res.*, <https://doi.org/10.1016/j.asr.2019.04.001>, 2019.
- (40) Uma, G., P. S. Brahmanandam, **S. Tulasi Ram**, K.-H. Wu, Y. H. Chu, [A complete solar cycle \(2006-2016\) studies of scale heights derived using COSMIC radio occultation retrieved electron density profiles](#), *J. Atm. Sol. Terr. Phys.*, 182, 101-118, <https://doi.org/10.1016/j.jastp.2018.11.010>2018, 2018.
- (41) **Tulasi Ram, S.**, Sai Gowtam, V., Mitra, A., and Reinisch, B., [The improved two-dimensional artificial neural network-based ionospheric model \(ANNIM\)](#), *J. Geophys. Res. Space Physics*, 123, <https://doi.org/10.1029/2018JA025559>, 2018. [Featured Article in JGR-Space Physics]
- (42) Ajith, K. K., **S. Tulasi Ram**, B. A. Carter, S. Sathish Kumar, M. Yamamoto, T. Yokoyama, S. Gurubaran, S. Sripathi, K. Hozumi, K. Groves and R. G. Caton, [Unseasonal development of post-sunset F-region irregularities over Southeast Asia on 28 July 2014: 2. Forcing from below?](#), *Progress in Earth and Planetary Science*, 5:60, <https://doi.org/10.1186/s40645-018-0218-1>, 2018.
- (43) Carter, B.A., **S. Tulasi Ram**, E. Yizengaw, R. Pradipta, J. Retterer, R. Norman, J. Currie, K. Groves, R. Caton, M. Terkildsen, T. Yokoyama and K. Zhang, [Unseasonal development of post-sunset F-region irregularities over Southeast Asia on 28 July 2014: 1. Forcing from above?](#), *Progress in Earth and Planetary Science*, 5:10, DOI 10.1186/s40645-018-0164-y, 2018.
- (44) Sai Gowtam, V., and **S. Tulasi Ram**, [An Artificial Neural Network based Ionospheric Model to predict NmF2 and hmF2 using long-term data set of FORMOSAT-3/COSMIC radio occultation observations: Preliminary results](#), *J. Geophys. Res. Space Physics*, 122, <https://doi.org/10.1002/2017JA024795>, 2017
- (45) **Tulasi Ram, S.**, P. S. Sunil, M. Ravi Kumar, S.-Y. Su, L. C. Tsai and C. H. Liu, [Coseismic travelling ionospheric disturbances during the Mw 7.8 Gorkha, Nepal, Earthquake on 25 April 2015 from ground and space borne observations](#), *J. Geophys. Res. Space Physics*, 122, 10669-10685, doi:10.1002/2017JA023860, 2017
- (46) Sai Gowtam, V., and **S. Tulasi Ram**, [Ionospheric annual anomaly – new insights to the physical mechanisms](#), *J. Geophys. Res. Space Physics*, 122, doi: 10.1002/2017JA024170, 2017.
- (47) Gokani, S.A., R. Singh, **S. Tulasi Ram**, K. Venkatesham, B. Veenadhari, S. Kumar, R. Selvakumaran, [Rare Observation of Daytime Whistlers at Very Low Latitude \(L = 1.08\)](#), *Adv. Space Res.*, doi: <http://dx.doi.org/10.1016/j.asr.2017.07.035>, 2017. [Outstanding paper award by COSPAR-2018]

- (48) **Tulasi Ram, S.**, K. K. Ajith, T. Yokoyama, M. Yamamoto, and K. Niranjana, [Vertical rise velocity of equatorial plasma bubbles estimated from Equatorial Atmosphere Radar \(EAR\) observations and HIRB model simulations](#), *J. Geophys. Res. Space Physics*, 122, doi:10.1002/2017JA024260, **2017**. [Featured article in JGR-Space Physics]
- (49) Balan, N., **S. Tulasi Ram**, Y. Kamide, I. S. Batista, K. Shiokawa, P. K. Rajesh, N. J. Victor and J. Souja, [Automatic selection of Dst storms and their seasonal variations in two versions of Dst in 50 years](#), *Earth, Planets and Space*, 69:59, <https://doi.org/10.1186/s40623-017-0642-2>, **2017**.
- (50) Venkatesh, K., **S. Tulasi Ram**, P. R. Fagundes, G. K. Seemala, and I. S. Batista, [Electrodynamic disturbances in the Brazilian equatorial and low-latitude ionosphere on St. Patrick's Day storm of 17 March 2015](#), *J. Geophys. Res. Space Physics*, 122, doi:10.1002/2017JA024009, **2017**.
- (51) Sai Gowtam, V., and **S. Tulasi Ram**, [Ionospheric winter anomaly and annual anomaly observed from Formosat-3/COSMIC Radio Occultation observations during the ascending phase of solar cycle 24](#), *Adv. Space Res.*, <http://dx.doi.org/10.1016/j.asr.2017.03.017>, **2017**.
- (52) Balan, N., Y. Ebihara, R. Skoug, K. Shiokawa, I. S. Batista, **S. Tulasi Ram**, Y. Omura, T. Nakamura, and M.-C. Fok, [A scheme for forecasting severe space weather](#), *J. Geophys. Res. Space Physics*, 122, doi: 10.1002/2016JA023853, **2017**.
- (53) Ajith K. K., **S. Tulasi Ram**, M. Yamamoto, Y. Otsuka and K. Niranjana, [On the fresh development of Equatorial Plasma Bubbles \(EPBs\) around the midnight hours of June solstice](#), *J. Geophys. Res. Space Physics*, 121, doi:10.1002/2016JA023024, **2016**.
- (54) Kumar, S., B. Veenadhari, **S. Tulasi Ram**, S.-Y. Su and T. Kikuchi, [Possible relationship between the Equatorial Electrojet \(EEJ\) and daytime vertical ExB drift velocities in F region from ROCSAT observations](#), *Adv. Space Res.*, <http://dx.doi.org/10.1016/j.asr.2016.06.009>, **2016**.
- (55) Balan, N., I. S. Batista, **S. Tulasi Ram** and P. K. Rajesh, [A new parameter of geomagnetic storms for the severity of space weather](#), *Geosci. Lett.*, doi: 10.1186/s40562-016-0036-5, **2016**.
- (56) Dao, T., Y. Otsuka, K. Shiokawa, **S. Tulasi Ram**, M. Yamamoto, [Altitude development of post-midnight F-region field-aligned irregularities observed using Equatorial Atmosphere Radar in Indonesia](#), *Geophys. Res. Lett.*, doi:10.1002/2015GL067432, **2016**.
- (57) **Tulasi Ram, S.**, T. Yokoyama, Y. Otsuka, K. Shiokawa, S. Sripathi, B. Veenadhari, R. Heelis, K. K. Ajith, V. S. Gowtam, S. Gurubaran, P. Supnithi, and M. Le Huy, [Dusk-side enhancement of equatorial zonal electric field response to convection electric fields during the St. Patrick's Day storm on 17 March 2015](#), *J. Geophys. Res. Space Physics*, 120, doi:10.1002/2015JA021932, **2016**.
- (58) **Tulasi Ram, S.**, S.-Y. Su, L.-C. Tsai and C. H. Liu, [A self-contained GIM-aided Abel retrieval method to improve GNSS-Radio Occultation retrieved electron density profiles](#), *GPS. Solutions*, doi:10.1007/s10291-015-0491-z, **2015**.
- (59) Tsai, L.-C., S.-Y. Su, C. H. Liu and **S. Tulasi Ram**, [Ionospheric electron density profiling and modeling of COSMIC follow-on simulations](#), *J. Geodesy*, doi: 10.1007/s00190-015-0861-x, **2015**.
- (60) **Tulasi Ram, S.**, K. K. Ajith, M. Yamamoto, Y. Otsuka, T. Yokoyama, K. Niranjana and S. Gurubaran, [Fresh and evolutionary-type field-aligned irregularities generated near sunrise terminator due to overshielding electric fields](#), *J. Geophys. Res. Space Physics*, 120, doi:10.1002/2015JA021427, **2015**.

- (61) Kumar, S., B. Veenadhari, **S. Tulasi Ram**, R. Selvakumaran, S. Mukherjee, R. Singh and B. D. Kadam, [Estimation of interplanetary electric field conditions for historical Geomagnetic storms](#), *J. Geophys. Res. Space Physics*, 120, doi:10.1002/2015JA021661, **2015**.
- (62) **Tulasi Ram, S.**, R. Heelis, V. S. Gowtham, K. K. Ajith and S.-Y. Su, [Unique latitudinal shape of ion upper transition height \( \$H\_T\$ \) surface during deep solar minimum \(2008-2009\)](#), *J. Geophys. Res. Space Physics*, 120, doi:10.1002/2014JA020647, **2015**.
- (63) Ajith K K., **S. Tulasi Ram**, M. Yamamoto, T. Yokoyama, V. S. Gowtam, Y. Otsuka, T. Tsugawa, K. Niranjana, [Explicit characteristics of evolutionary type plasma bubbles observed from Equatorial Atmosphere Radar during the low to moderate solar activity years 2010-2012](#), *J. Geophys. Res. Space Physics*, 120, doi:10.1002/2014JA020878, **2015**.
- (64) Balan, N., R. Skoug, **S. Tulasi Ram**, P. K. Rajesh, K. Shiokawa, Y. Otsuka, I. S. Batista and T. Nakamura, [CME front and severe space weather](#), *J. Geophys. Res. Space Physics*, 119, doi:10.1002/2014JA020151, **2014**.
- (65) **Tulasi Ram, S.**, Sandeep Kumar, S.-Y. Su, B. Veenadhari and S. Ravindran, [The influence of Corotating Interaction Region \(CIR\) driven geomagnetic storms on the development of equatorial plasma bubbles \(EPBs\) over wide range of longitudes](#), *Advances in Space Research*, doi:10.1016/j.asr.2014.10.013, **2014**.
- (66) **Tulasi Ram, S.**, M. Yamamoto, R. T. Tsunoda, H.D.Chau, T.L. Hoang, B. Damtie, M. Wassiaie, C.Y. Yatini, T. Manik, T. Tsugawa, [Characteristics of large scale wave structure observed from African and Southeast Asian longitudinal sectors](#), *J. Geophys. Res. Space Physics*, 119, 2288–2297, doi:10.1002/2013JA019712, **2014**.
- (67) Balan, N., P. K. Rajesh, S. Sripathi, **S. Tulasi Ram**, J. Y. Liu and G. J. Bailey, [Modeling and observations of the north-south ionospheric asymmetry at low latitudes at long deep solar minimum](#), *Advances in Space Research*, 52, 3, 375-382, <https://doi.org/10.1016/j.asr.2013.04.003>, **2013**.
- (68) SKAVP Rao Anisetty, P.S.Brahmanandam, G. Uma, A. N. Badu, CY Huang, G. Anil Kumar, **S. Tulasi Ram**, H.L.Wang and Y. H. Chu, [Planetary-Scale wave structures of the Earth's Atmosphere revealed from the COSMIC Observations](#), *Journal of Meteorological Research*, 28, 2, 281-295, **2013**.
- (69) **Tulasi Ram, S.**, N. Balan, B. Veenadhari, S. Gurubaran, S. Ravindran, T. Tsugawa, H. Liu, K. Niranjana and T. Nagatsuma, [First observational evidence for opposite zonal electric fields in equatorial E and F region altitudes during a geomagnetic storm period](#), *J. Geophys. Res. Space Physics*, 117, A09318, doi:10.1029/2012JA018045, **2012**.
- (70) Sahai, Y., R. de Jesus, P. R. Fagundes, C. L. Selhorst, A. J. de Abreu, **S. Tulasi Ram**, A. Aragon-Angel, V. G. Pillat, J. R. Abalde, W.L.C. Lima, J. A. Bittencourt, [Effects observed in the equatorial and low latitude ionospheric F-region in the Brazilian sector during low solar activity geomagnetic storms and comparison with the COSMIC measurements](#), *Advances in Space Research*, 50, 1344-1351, doi:10.1016/j.asr.2012.07.006, **2012**.
- (71) **Tulasi Ram, S.**, M. Yamamoto, R. T. Tsunoda, S. V. Thampi and S. Gurubaran, [On the application of differential phase measurements to study the zonal large scale wave structure \(LSWS\) in the ionospheric electron content](#), *Radio Science*, *Radio Science*, 47, RS2001, doi:10.1029/2011RS004870, **2012**. [AGU Editor's Choice, posted 11 Apr 2012]
- (72) **Tulasi Ram, S.**, M. Yamamoto, B. Veenadhari, Sandeep Kumar and S. Gurubaran, [Corotating Interaction Regions \(CIRs\) at sub-harmonic solar rotational periods and their impact on Ionosphere-Thermosphere system during the extreme low solar activity year, 2008](#), *Indian Journal of Radio and Space Physics (special issue)*, 41, 294-305, **2012**.

- (73) Veenadhari, B., Sandeep Kumar, **S. Tulasi Ram**, Rajesh Singh, S. Alex, [Corotating Interaction Region \(CIR\) induced magnetic storms during solar minimum and their effects on low latitude geomagnetic field and ionosphere](#), *Indian Journal of Radio and Space Physics (special issue)*, 41, 306-215, **2012**.
- (74) Manju, G., M. K. Madhav Haridas, Sudha Ravindran, T. K. Pant and **S. Tulasi Ram**, [Equinoctial asymmetry in the occurrence of equatorial spread-F over Indian longitudes during moderate to low solar activity period 2004-2007](#), *Indian Journal of Radio and Space Physics (special issue)*, 41, 240-246, **2012**.
- (75) Balan, N., J. Y. Liu, Y. Otsuka, **S. Tulasi Ram**, and H. Luhr, [Ionospheric and thermospheric storms at equatorial latitudes observed by CHAMP, ROCSAT and DMSP](#), *J. Geophys. Res. Space Physics*, 117, A01313, doi:10.1029/2011JA016903, **2012**.
- (76) Tsunoda, R. T., M. Yamamoto, T. Tsugawa, T. L. Hoang, **S. Tulasi Ram**, S. V. Thampi, H. D. Chau, and T. Nagatsuma, [On seeding, large-scale wave structure, equatorial spread F, and scintillations over Vietnam](#), *Geophysical Research Letters*, 38, L20102, doi:10.1029/2011GL049173, **2011**.
- (77) Vijaya Lekshmi, D., N. Balan, **S. Tulasi Ram**, and J. Y. Liu, [Statistics of geomagnetic storms, and ionospheric storms at low and mid-latitudes in two solar cycles](#), *J. Geophys. Res. Space Physics*, 2011JA017042, 116, A11328, doi:10.1029/2011JA017042, **2011**.
- (78) **Tulasi Ram, S.**, M. Yamamoto, H. Liu, B. Veenadhari and S. Alex, [Comment on "Westward electric field penetration to the dayside equatorial ionosphere during the main phase of the geomagnetic storm on 22 July 2009"](#), *J. Geophys. Res. Space Physics*, 116, A06315, doi:10.1029/2011JA016634, **2011**.
- (79) Liu, H., E. Doornbos, M. Yamamoto and **S. Tulasi Ram**, [Strong thermospheric cooling during the 2009 major stratospheric warming](#), *Geophysical Research Letters*, 38, L12102, doi:10.1029/2011GL047898, **2011**.
- (80) Liu, H., M. Yamamoto, **S. Tulasi Ram**, T. Tsugawa, Y. Otsuka, C. Stolle, E. Doornbos, K. Yumoto and T. Nagatsuma, [Equatorial Electrodynamics and Neutral Background in the Asian Sector During the 2009 Stratospheric Sudden Warming](#), *J. Geophys. Res. Space Physics*, 116, A08308, doi:10.1029/2011JA016607, **2011**.
- (81) **Tulasi Ram, S.**, C. H. Liu, S.-Y. Su and R. A. Heelis, [A comparison of ionospheric O<sup>+</sup>/light-ion transition height derived from ion-composition measurements and the topside ion density profiles over equatorial latitudes](#), *Geophysical Research Letters*, 37, L20107, doi:10.1029/2010GL045199, **2010**.
- (82) **Tulasi Ram, S.**, C. H. Liu, and S.-Y. Su, [Periodic solar wind forcing due to recurrent Coronal holes during 1996-2009 and its impact on Earth's geomagnetic and ionospheric properties during extreme solar minimum](#), *J. Geophys. Res. Space Physics*, 115, A12340, doi:10.1029/2010JA015800, **2010**.
- (83) **Tulasi Ram, S.**, S.-Y. Su, C.H. Liu, J. Lei and C.H. Lin, [Dayside ionospheric response to recurrent geomagnetic activity during the extreme solar minimum of 2008](#), *Geophysical Research Letters*, 37, L02101, doi:10.1029/2009GL041038, **2010**. [*This paper is selected and featured in the Editor's Choice column of AGU's Space Weather (quarterly) journal*]
- (84) **Tulasi Ram, S.**, S.-Y. Su, C.H. Liu, B.W. Reinisch and Lee-Anne McKinnell, [Topside ionospheric effective scale heights \(H<sub>T</sub>\) derived from ROCSAT-1 and ground-based Ionosonde observations at equatorial and mid-latitude stations](#), *J. Geophys. Res. Space Physics*, 114, A10309, doi:10.1029/2009JA014485, **2009**.

- (85) **Tulasi Ram, S.**, S.-Y. Su and C.H. Liu, [FORMOSAT-3/COSMIC observations of seasonal/longitudinal variations of Equatorial Ionization Anomaly \(EIA\) and its inter-hemispheric asymmetry during the solar minimum period](#), *J. Geophys. Res. Space Physics*, 114, A06311, doi:10.1029/2008JA013880, **2009**
- (86) **Tulasi Ram, S.**, P.V.S. Rama Rao, D.S.V.V. D. Prasad, K. Niranjana, S. Gopi Krishna, R. Sridharan and Sudha Ravindran, [Local time dependant response of post-sunset ESF during geomagnetic storms](#), *J. Geophys. Res. Space Physics*, 113, A07310, doi:10.1029/2007JA012922, **2008**.
- (87) **Tulasi Ram, S.**, P.V.S. Rama Rao, D.S.V.V.D. Prasad, K. Niranjana, A. Raja Babu, R. Sridharan, C.V. Devasia and Sudha Ravindran, [The combined effects of electrojet strength and the geomagnetic activity \(Kp-index\) on the post sunset height rise of the F-layer and its role in the generation of ESF during high and low solar activity periods](#), *Annales Geophysicae*, Vol. 25, p2007-2017, **2007**.
- (88) **Tulasi Ram, S.**, P.V.S. Rama Rao, D.S.V.V.D. Prasad, K. Niranjana, R. Sridharan, C.V. Devasia and Sudha Ravindran, [Local Time dependant response of Indian equatorial ionosphere to the moderate geomagnetic storms](#), *Advances in Space Research*, doi:10.1016/j.asr.2006.12.031, **2007**.
- (89) **Tulasi Ram, S.**, P.V.S. Rama Rao, K.Niranjana, D.S.V.V.D.Prasad, R. Sridharan, C.V. Devasia and Sudha Ravindran, [The role of post sunset vertical drifts at the equator in predicting the onset of VHF scintillations during high and low sunspot activity years](#), *Annales Geophysicae*, Vol.24, p1609-1616, **2006**.
- (90) P.V.S. Rama Rao, **S. Tulasi Ram**, S. Gopi Krishna, K. Niranjana and D.S.V.V.D Prasad, [Morphological and Spectral Characteristics of L-band and VHF scintillations and their impact on trans-ionospheric communications](#), *Earth, Planets and Space*, Vol. 58, p895-904, **2006**.
- (91) P. V. S. Rama Rao, **S. Tulasi Ram**, K. Niranjana, D. S. V. V. D. Prasad, S. Gopi Krishna, and N. K. M. Lakshmi, [VHF and L-band scintillation characteristics over an Indian low latitude station, Waltair \(17.7°N, 83.3°E\)](#), *Annales Geophysicae*, Vol. 23, p2457–2464, **2005**.