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IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing Special Issue on “Joint Polar Satellite System Sensor Data Calibration and Applications”

The Joint Polar Satellite System (JPSS) is an advanced series of polar-orbiting environmental satellites, which serves as the backbone of the global observing system. Each satellite carries 5 or 6 passive sensors on the same platform to measure radiances covering microwave, infrared, visible, and ultraviolet spectra for supporting accurate weather forecasts and climate studies as well as for generating several dozens’ environmental data records. The first satellite Suomi National Polar-orbiting Partnership (SNPP) was launched on 28th October, 2011. The second satellite JPSS-1 (now NOAA-20, National Oceanic and Atmospheric Administration - 20) was launched on 18th November, 2017. The third satellite JPSS-2 (now NOAA-21) was launched on 10th November, 2022. The next satellite JPSS-3 will be launched in 2027. The last satellite JPSS-4 is scheduled for the launch in 2032 and we expect the measurements till after 2040.

Since the JPSS passive sensor data cover wide spectra from ultraviolet to microwave over a longtime period, there are great interests and needs to collect scientific and technical achievements in addressing the sensor data calibration and applications for weather forecasts, climate studies and ecosystem. In addition, artificial intelligence (AI) technology has made a remarkable difference in developing algorithms and using the sensor data.

The broad topics include (but are not limited to):

- Satellite remote sensing sensor data calibrations.
- Satellite remote sensing data reprocessing.
- Satellite remote sensing environmental data records.
- Satellite remote sensing data for weather forecasts and climate studies.
- Radiative transfer modeling for radiance simulations and assimilations.
- AI technology for satellite remote sensing data applications.

Schedule

August 1, 2023 Submission system opening
April 30, 2024 Submission system closing

Format

All submissions will be peer reviewed according to the IEEE Geoscience and Remote Sensing Society guidelines. Submitted articles should not have been published or be under review elsewhere. Submit your manuscript on <http://mc.manuscriptcentral.com/jstars>, using the Manuscript Central interface and select the “**Joint Polar Satellite System Sensor Data Calibration and Applications**” special issue manuscript type. Prospective authors should consult the site <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9082768> for guidelines and information on paper submission. All submissions must be formatted using the IEEE standard format (double column, single spaced). Please visit http://www.ieee.org/publications_standards/publications/authors/author_templates.html to download a template for transactions. Please note that as of Jan. 1, 2020, IEEE J-STARS has become a fully open-access journal charging a flat publication fee \$1,250 per paper.

Guest Editors

Quanhua Liu, NOAA/Center for Satellite Application and Research, Maryland, USA, Quanhua.Liu@noaa.gov
Qifeng Lu, CMA/Center for Earth System Modeling and Prediction, Beijing, China, luqf@cma.gov.cn
Banghua Yan, NOAA/Center for Satellite Application and Research, Maryland, USA, Banghua.Yan@noaa.gov
Suryakanti Dutta, National Centre for Medium Range Weather Forecasting, New Delhi, India, suryakanti.dutta@gov.in