SCOSTEP 2026 Distinguished Young Scientist Award

SCOSTEP is pleased to announce that the
2026 Distinguished Young Scientist Award is given to


Dai Koshin

Dr. Dai Koshin
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Citation: Dr. Dai Koshin is a very talented young scientist. He played a key role in generating the first whole atmosphere reanalysis JAWARA. Prior reanalyses had upper boundaries at no more than ~60 km, preventing their use for studying the mesosphere and lower thermosphere (MLT), whereas JAWARA goes all the way from surface throughout the lower thermosphere. Also his scientific contributions to advancing understanding of middle and upper atmosphere variability is important.

Dr. Koshin developed already as a PhD student JAGUAR-DAS, a whole atmosphere data assimilation system; only a few groups worldwide developed such systems due to their complexity. Then he generated JAWARA, the first whole atmosphere reanalysis, and made it publicly available to the research community in the early 2025 (https://doi.org/10.17592/002.2025010407). JAWARA represents a milestone community resource, and it is thanks to Dr. Koshin's efforts that the scientific community now has a reanalysis that extends from the surface all the way to the lower thermosphere. JAWARA filled a critical community gap, and is already having a significant impact that is only going to grow in the future. However, he not only developed JAWARA. He has significantly advanced knowledge of interhemispheric coupling between the stratosphere and the mesosphere and lower thermosphere (MLT region), developing new understanding of the dynamical processes that couple variability in the high-latitude stratosphere to MLT variations in the opposite hemisphere. He has also elucidated the role of gravity waves in driving the lower thermosphere circulation, an important circulation that impacts upper thermosphere composition and dynamics. He showed that gravity waves generated at higher altitudes, which are typically neglected in low-resolution simulations, play a role in driving the lower thermosphere circulation, demonstrating the need to account for wave generation at higher altitudes to accurately capture the lower thermosphere circulation.

Dr. Koshin received the Meteorological Society of Japan Matsuno Award in 2020, and Japan Society for the Promotion of Science Overseas Research Fellowship in 2024.