
JDR Award for the Most Cited Paper 2022:

Message from the Winner



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I am very honored to receive the JDR Award for the Most Cited Paper 2022, and I am very grateful to the editorial board and staff of the *Journal of Disaster Research*. The paper, “Total Electron Content Observations by Dense Regional and Worldwide International Networks of GNSS,” reviews our research related to ionospheric observations using GNSS receiver networks. Since the late 1990s, the rapid development of GNSS receiver networks has made it possible to observe the ionosphere in two dimensions with high temporal and spatial resolution, revealing new features of various ionospheric phenomena. Ionospheric observation using GNSS receiver networks has become an indispensable method of observation in the space weather field. After the 2011 Tohoku Earthquake, it was revealed that various atmospheric waves excited by earthquakes and tsunamis propagated up to the ionosphere and caused ionospheric variations, suggesting the possibility of tsunami monitoring using ionospheric observations. We are also working on the standardization of ionospheric data formatting to achieve even higher spatial resolution and wider coverage of ionospheric observation using GNSS receiver networks through international cooperation. Encouraged by this award, we will continue our research and development efforts with a view to applying this technology not only to space weather but also to natural disasters such as earthquakes and tsunamis.

Takuya Tsugawa
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