Jürgen
Matzka
GFZ German Research Center for Geosciences, Germany
Guram Kervalishvili, GFZ German Research Center for Geosciences, Germany
Jan Rauberg, GFZ German Research Center for Geosciences, Germany
Yosuke Yamazaki, IAP Leibniz Institute of Atmospheric Physics, Germany

Poster

GFZ Potsdam provides the international Kp index as a near real-time (NRT) version for operational services and as a definitive version for post event analysis and scientific studies. The index is now available through a new portal, kp.gfz-potsdam.de, from where all previously existing data streams and new data distribution channels (e.g. web service, https, ftp) are linked. The new Hpo indices are very similar to Kp. They correlate well with Kp during both quiet and storm times, they have very similar statistical properties and they correlate slightly better with solar wind parameters (see other abstract by Matzka et al.). However, due to their higher temporal resolution (hourly Hp60, half-hourly Hp30) they are for example better suited to describe substorm activity or the onset timing of geomagnetic activity. Apart from that, the Hpo indices are open-ended and thus describe extremely large space weather events much more nuanced than Kp, which is capped at 9 and is assigning the value 9 to all extreme events. From an operational point of view, the Hpo indices are produced in the same way as Kp, and should thus be equally robust and reliable.

Poster PDF
Matzka-Juergen-Wednesday.pdf
Poster category
Ionosphere and Thermosphere Research and Applications
Meeting homepage

Space Weather Workshop 2023
Download to PDF