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Poster
The sporadic E (Es) layer is a prominent ionospheric irregularity that strongly impacts HF communicaitons. Driven dominantly by vertical wind shear at mid-latitudes, it is sensitive to both geomagnetic forcing and lower atmosphere forcing that can influence the neutral wind in the mesosphere and lower thermosphere region at various time and spatial scales. This work gives 3 examples that demonstrate Es as an indicator for these vertical coupling processes. This includes Es responses to magnetic storms at the scale of a day, SSW at the scale of weeks, also to increasing CO2 at the scale of decades.
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22
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