



(Tele)Connectivity in climate variability at different spatial/temporal scales in relation to solar and geomagnetic activity

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Quasi-oscillatory dynamical modes detected in instrumental records of meteorological variables, climatological proxies and proxies of solar activity (Palus & Novotna, J. Atmos. Sol.-Terr. Phys. 69, 2007, 2405-2415) have brought the possibility to study solar-terrestrial phenomena in terms of scale-specific phase coherence between the solar/geomagnetic activity and climate variability (Palus & Novotna, J. Atmos. Sol.-Terr. Phys. 71, 2009, 923-930). Scale-specific phase coherence and partial phase coherence (synchronization) (Schelter et al., Phys. Rev. Lett. 96, 2006, 208103) can bring new insights to local connectivity and teleconnections in climate networks in relation to major atmospheric circulation modes (NAO, AO, PDO, ENSO) and solar and geomagnetic activity. Results obtained using the NCEP/NCAR and ERA40 reanalysis data will be presented.

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