



Identifying Natural and Anthropogenic Weekend Effects

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Human activities have been suggested to result in weekly cycles of meteorological variables, coined the “weekend effect.” In Kim et al. (2000), atmospheric Rossby waves were found to also induce the “natural” weekend effect, which is comparable, if not stronger, to the “anthropogenic” weekend effect. As a result, true “anthropogenic” weekend effect cannot be clearly seen until the “natural” weekend effect is removed. An attempt to remove the natural weekend effect results in an overall positive weekend effect over North America, which is significantly different from the patterns published earlier. In this talk, the physical nature of the natural weekend effect is discussed in detail together with the computational procedure adopted to extract the natural signal.