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Signature of global warming on global lightning distribution

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Global lightning is mainly a land related phenomenon and highly dependent on the surface air temperature. The Northern hemisphere has started warming up more rapidly than the Southern hemisphere since 1993. Schumann resonances (electromagnetic eigenmodes of the Earth-ionosphere cavity) are maintained by the global lightning activity and can give a robust estimation on the global lightning activity and global lightning position. Schumann resonance frequencies measured at Nagycenk, Hungary indicate that the global position (hypothetical centre) of global lightning has shifted northward by about 4-6 degree latitude in the Northern hemisphere summer in the last fifteen years.