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Timescales and Coherence Above and Within a Forest Site

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To study the transport of reactive trace gases above and within a forest during the ECHO campaigns 2002 and 2003, wind vectors and temperature above and within the forest were measured with 15 ultrasonic anemometers at two towers. To study timescales and coherence, all data were continously sampled at 10Hz for several month. The data are sampled by newly developed datarouters, which use the network time protocol (NTP) for accurate timestamps. The highly resolved wind and temperature profiles are now studied to determine not only the meteorological and aerodynamical standard parameters, but also timescales and the coherence of transport by different mathematical methods like FFT and Wavelets.