



## **Processing of Schumann resonance transients observed at Nagycenk, Hungary**

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Schumann resonance (SR) transients are excited in the Earth-ionosphere waveguide in the extremely low frequency (ELF) band (3Hz – 3kHz) by powerful electromagnetic pulse sources such as energetic lightning strokes. These transient excitations can be observed as coherent amplitude excursions in the recorded time series of the electromagnetic field components. Geographical location, polarity and charge moment change of energetic cloud to ground lightnings occurring far from the observer (up to 20 Mm) can be estimated by processing SR transient events. SR transients have been monitored at the Széchenyi István Geophysical Observatory near Nagycenk (NCK), Hungary, since 1998. The poster presents the recording system for Schumann resonances, covers the steps of data processing applied for a typical SR transient and highlights modifications of the general processing methods introduced due to local noise and the limitations of the recording hardware.