

## Development of Tono EM-ACROSS system and the trial observation of transfer functions between the source and receivers

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This reports a preliminary result on our transmission experiments to determine a transfer function of low frequency electromagnetic signals between a source and receiver. The characteristic feature of our approach is the use of accurately phase-controlled rectangular waves, so that the long term stacking of received signals leads to larger S/N for the transfer function at the discrete frequencies. We detect a 0.5 Hz rectangular wave signal of 1 microV/m with signal to noise ratio of about 10 by stacking for 8 hours at a receiver 3 km apart from the dipole source of 200 Am.

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