Attempt of Imaging Buried paleochannel from microwave remote sensing

katsuya yamamoto[1]; Kyosuke Onishi[2]; Yasuhiro Yamada[3]; Toshifumi Matsuoka[4]

[1] Global Eng., Kyoto Univ.,; [2] Civil & Earth Res. Eng., Kyoto Univ.; [3] Civ. Earth Res. Eng., Kyoto Univ.; [4] Kyoto Univ

It is reported that the case where it is projected for the underground river mark that cannot be caught with an optical sensor on the reproduction image of the dry desert zone acquired by Synthetic Aperture Radar (SAR) that is one of the micro wave image radar.

In this research ,We examined detachable of the backscatter wave of a ground level and an underground boundary from data that catches the same region at a different angle by using an off Nadia corner changeable function that L band Synthetic Aperture Radar has.The pseudoobservation record in the desert model of two horizontal layer structure is made by using 2D FDTD method. We expressed the point of observation from a different angle by changing the sending and receiving point position of the simulation. The sweep wave of center frequency 1.275GHz similar to PALSAR is used for the transmission wave.We tried the separation of backscatter information from a ground level and an underground boundary by using the migration of the pseudoobservation record .