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Computation of Rayleigh wave dispersion on anisotropic media by compound matrix method

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The surface wave dispersion on isotropic media can be calculated by the Haskel method. However, it is well known that the phase velocity in the high frequency cannot be calculated for computing error. As the calculation method to overcome this problem, the compound matrix method was proposed.

In this study, we calculated Rayleigh wave dispersion on anisotropic media by applying the compound matrix method. In conclusion, the compound matrix method can be available for calculation of Rayleigh wave dispersion in the higher frequency than the Haskel method.

Keywords: dispersion curve, anisotropic media, compound matrix method, surface waves