



## **Non-reflective wave propagation in strongly inhomogeneous compressible atmosphere**

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Non-reflective wave propagation in strongly inhomogeneous compressible inviscid atmosphere is studied. It is shown that the variable-coefficient partial differential equation of second order described the acoustic waves can be reduced to the Klein-Gordon equation with constant coefficients if the sound speed satisfies to specific condition. The application of given approach to the acoustic waves in stellar and Earth atmospheres is discussed. It is demonstrated that real atmospheres can be approximated by the small number of non-reflective layers. Wave transmission coefficients are calculated in broad range of the wave frequencies.

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