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Dedicated to Professor LAZĂR DRAGOȘ on his 75<sup>th</sup> birthday

## Fundamental Solutions of Oscillatory Compressible Stokes Equations

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**Abstract** - The paper presents the fundamental solutions of compressible Stokes equations. It is supposed that the pressure and velocity fields are harmonic in time with the same angular velocity. The general solutions of the oscillatory compressible Stokes equations yield the solution of oscillatory compressible inviscid fluid flow as particular case. Using the fundamental solutions an integral representation formula for the velocity field is presented.

**Key words and phrases** : compressible Stokes equations, oscillatory flow, Fourier transform, Helmholtz equation, fundamental solutions.

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