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## Oscillations of astrophysical neutrinos in various gravitational backgrounds

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The neutrino propagation and oscillations in various gravitational fields are studied. First, we consider the neutrino scattering off a rotating black hole accounting for the neutrino spin precession. Then, we study the evolution of flavor neutrinos, emitted in a supernova explosion, in stochastic gravitational waves. The astrophysical applications of the obtained results are considered.

### References

1. M. Dvornikov, Neutrino scattering off a black hole surrounded by a magnetized accretion disk. JCAP 04, 005 (2021) [arXiv:2102.00806].
2. M. Dvornikov, Interaction of supernova neutrinos with stochastic gravitational waves. Phys. Rev. D 104, 043018 (2021) [arXiv:2103.15464].

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