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## Stochastic gravitational waves from spin 3/2

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Stochastic gravitational waves can be produced during the preheating when out-of-equilibrium particles are produced with an anisotropic stress-tensor. We discuss the case where these particles carry spin 3/2. We compute the spectrum of the gravitational waves generated by the transverse and longitudinal components. We find a different scaling of the spectrum near the peak and the longitudinal components lead to an enhancement when compared to spin-1/2 fermions with Yukawa couplings. We note, as expected, that the corresponding typical frequency is too high for the current observation and calls for ultra-high frequency gravitational wave detectors in the future.

**Primary author:** BENAKLI, Karim (Centre National de la Recherche Scientifique (FR))

**Co-authors:** CHEN, Yifan (LPHE, Paris); CHENG, Peng; LAFFORGUE-MARMET, Gaëtan

**Presenter:** BENAKLI, Karim (Centre National de la Recherche Scientifique (FR))

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