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Spin 3/2 FIMP: direct detection and collider bounds

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We present a Spin 3/2 FIMP dark matter (DM) candidate. FIMP dark matter is produced via the freeze-in mechanism that generally implies tiny coupling between the DM and the standard model particles, making DM direct detection almost hopeless. This is not the case for a spin 3/2 DM at low reheating temperature, where collider bounds play a fundamental role in constraining the parameter space. We show the viability of the model and discuss the details of the production mechanism and future experiments that can falsify it.

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