

Spectator Dark Matter <<https://bit.ly/2Ezq4Nw>>

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The observed dark matter abundance in the Universe can be fully accounted for by a scalar field that was light during cosmic inflation and has sufficiently strong self-coupling. In this scenario, dark matter was produced in a somewhat non-standard way: by amplification of quantum fluctuations of the scalar field during inflation. The self-interaction of the field suppresses its fluctuations on large scales, and therefore avoids cosmological isocurvature constraints. The scenario does not require any fine-tuning of parameters. I will also discuss ways to test the scenario.

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