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Freeze-in at stronger coupling

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In this talk, I will discuss the freeze-in dark matter production mechanism at low reheating temperatures. The process is Boltzmann-suppressed if the dark matter mass is above the reheating temperature, and, in this case, the coupling to the thermal bath has to be significant to account for the observed dark matter relic density. As a result, the direct DM detection experiments can already probe such freeze-in models, excluding significant parts of parameter space. The forthcoming experiments will explore this framework further, extending to lower couplings and higher reheating temperatures.

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