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# The fine-scale structure of dark matter halos

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I will discuss the fine-scale structure expected in the dark matter distribution at the position of the Sun (and thus relevant for direct detection experiments) using numerical simulations with effective mass resolution exceeding that of previous simulations used to address this issue by more than 10 orders of magnitude. The local
distribution should be a superposition of a very large number (more than 10^14) of
streams, each with very low internal velocity dispersion. Half of all detections will
come from particles in streams which individually contribute less than one millionth of the local mass density. However, about one thousandth of the events should come from a single stream which might thus show up as an extremely narrow “spectral line” in axion
detection experiments.

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