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Memory-burdened Primordial Black Holes

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Primordial Black holes (PBHs) are hypothetical black holes formed in the earliest times of the Universe, as a result of inflationary scenarios or physics beyond the Standard Model. These intriguing objects have attracted significant attention over the last decade, especially in the context of dark matter and detectability of the Hawking radiation from PBH evaporation. Recent studies have pointed out that quantum effects, referred to as "memory burden", may slow down the evaporation of black holes, allowing for light PBHs to account for a significant fraction of the dark matter energy density. I will discuss the interesting phenomenological consequences of this scenario.

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