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## Search for the Sagittarius Tidal Stream of Axion Dark Matter around $4.55 \mu\text{eV}$

*Thursday 24 August 2023 10:30 (15 minutes)*

We report the first search for the Sagittarius tidal stream of axion dark matter around  $4.55 \mu\text{eV}$  using CAPP-12TB haloscope data acquired in March of 2022.

Our result excluded the Sagittarius tidal stream of Dine-Fischler-Srednicki-Zhitnitskii and Kim-Shifman-Vainshtein-Zakharov axion dark matter densities of  $\rho_a \gtrsim 0.184$  and  $\gtrsim 0.025 \text{ GeV/cm}^3$ , respectively, over a mass range from  $4.51$  to  $4.59 \mu\text{eV}$  at a 90% confidence level.

### Collaboration / Activity

CAPP-12TB

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**Session Classification:** T03 Dark Matter

**Track Classification:** Dark Matter