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TITLE: Low energy solar axion flux

ABSTRACT:

We present a first estimate of solar axion flux at energy $E \lesssim 100$ eV, considering both Primakoff production both axion-photon conversion in large scale solar B-field. We find that if an enhancement of the axion-photon coupling would happen in outer layers of the Sun, as motivated by PVLAS-inspired models, an observable low energy flux could be observable. Its detection would show signatures of PVLAS axion-like particle, and would probe some of these nonstandard scenarios.