

## “暗光计划”实验预研进展

*Thursday, 9 May 2024 16:20 (20 minutes)*

Dark photons have been well motivated as strong candidates for dark force carriers and light dark matter in the sub-GeV mass range. The DarkSHINE has been proposed as electron-on-fixed target experiment based on the Shanghai SHINE facility, with the aim of detecting the invisible decay of dark photons to light dark matter. This experiment takes advantage of using missing momentum to enhance signal versus background separation power. In this talk, I will present the prospective study of light dark matter search based on simulations. Additionally, an overview of the DarkSHINE detector R&D current status will be provided.

### Collaboration (if any)

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