

Toward Search for Axion-Like Particles by a Three-Beam Stimulated Resonant Photon Collider with Short Pulse Lasers

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Toward the systematic search for light dark matter candidates such as axion-like particles in the eV mass range, we proposed the concept of a stimulated resonant photon collider by focusing three short pulse lasers into the vacuum. In order to realize such a collider, we have performed proof-of-principle experiments with large incident angles between three beams using a fixed and a variable-incident-angle collision systems. In this talk we will present the future prospect based on this method.