

# Why We Need a Terascale Photon Collider to Understand Light

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Recent interest in a photon-photon collider as a possible Higgs factory has revived the question of what other physics that can be done with such machines. We demonstrate that the  $b\bar{b}$  cross section, a large background to Higgs production at high energy photon colliders, has an uncertainty due to the resolved structure of the photon of nearly an order-of-magnitude. Hence, study of the resolved photon structure will be a compelling area of study at these machines.

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