

Diagram 1 (Left): A box diagram representing photon-photon scattering via a fermion loop. Four external wavy lines (photons) are labeled 1, 2, 3, and 4. Lines 1 and 2 enter from the left, and lines 3 and 4 exit to the right. The loop is formed by a fermion (solid line) and an antifermion (solid line with an arrow). The diagram is proportional to $\frac{(k_1 + k_2)^2}{(k_1 + k_2)^2}$.

Diagram 2 (Middle): A box diagram representing photon-photon scattering via a fermion loop. Four external wavy lines (photons) are labeled 1, 2, 3, and 4. Lines 1 and 2 enter from the left, and lines 3 and 4 exit to the right. The loop is formed by a fermion (solid line) and an antifermion (solid line with an arrow). The diagram is proportional to $(k_1 + k_2)^2$.

Diagram 3 (Right): A box diagram representing photon-photon scattering via a fermion loop. Four external wavy lines (photons) are labeled 1, 2, 3, and 4. Lines 1 and 2 enter from the left, and lines 3 and 4 exit to the right. The loop is formed by a fermion (solid line) and an antifermion (solid line with an arrow). The diagram is proportional to $(k_1 + k_2)^2$.