EXTRACTION OF ANOMALOUS $ZZ\gamma$ AND $Z\gamma\gamma$ COUPLINGS

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Deviations from the Standard Model for the $ZV\gamma$ couplings may be described in terms of 8 parameters, h_i^V ($i = 1, 4$; $V = \gamma, Z$) [1]. In this formalism h_1^V and h_2^V lead to CP-violating and h_3^V and h_4^V to CP-conserving effects. All these anomalous contributions to the cross section increase rapidly with center-of-mass energy. In order to ensure unitarity these parameters are usually described by a form-factor representation, $h_i^V(s) = h_{i0}^V/(1+s/\Lambda^2)^n$, where Λ is the energy scale for the manifestation of a new phenomenon and n is a sufficiently large power. By convention one uses $n = 3$ for $h_{1,3}^V$ and $n = 4$ for $h_{2,4}^V$. Usually limits on h_i^V's are put assuming some value of Λ (sometimes ∞).

Reference

1. U. Baur and E.L. Berger Phys. Rev. **D47**, 4889 (1993).