

# Order $g^2$ susceptibilities in the symmetric phase of the Standard Model

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Susceptibilities of conserved charges such as baryon minus lepton number enter baryogenesis computations, since they provide the relationship between conserved charges and chemical potentials. Their next-to-leading order corrections are of order  $g$ , where  $g$  is a generic Standard Model coupling. They are due to soft Higgs boson exchange, and have been calculated recently, together with some order  $g^2$  corrections. Here we compute the complete  $g^2$  contributions. Close to the electroweak crossover the soft Higgs contribution is of order  $g^2$ , and is determined by the non-perturbative physics at the magnetic screening scale.

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