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Probing the mechanism behind the matter-antimatter asymmetry

Our own existence is still a mystery, as some yet unknown mechanism had to generate an excess of matter over antimatter during the evolution of the Universe. After an introduction on why physics beyond the Standard Model is needed in order to explain the observed matter-antimatter asymmetry, I will give a brief overview of different theoretical mechanisms that are potentially able to explain such an asymmetry. Finally, I will discuss the challenges of probing baryogenesis models and will review promising experimental strategies.