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## Entropy production scenarios within SM and BSM Physics

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The possible entropy production scenarios in the early universe are revisited. From the particle physics viewpoint we consider electroweak phase transition (EWPT) in the standard model (SM) and beyond standard model (BSM) scenarios like 2 Higgs doublet model (2HDM) as a source of entropy influx into the primordial plasma. First order phase transition in the case of 2HDM is realised. From a cosmological viewpoint the evaporation of mini primordial black holes (PBH) in their matter dominated (MD) stage in the early Universe is considered for the same. The production of entropy and in turn the dilution of preexisting baryon asymmetry and the dark matter density are considered in details as well as possible production of entropy as a result of first order phase transition is discussed qualitatively.

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