

# Advancing gravitational wave predictions from cosmological first-order phase transitions



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## Examples of GW from FOPT and WallGo

Examples of GW from FOPT in BSM models and WallGo: I present three examples of BSM producing GW: one from  $SO(10)$  from the breaking chain  $SU(3)_C \times SU(2)_L \times SU(2)_R \times U(1)_{B-L}$  (2506.07182), another from a first-order phase transition of the inflaton coupled to a dark sector (2412.17278) and the third one from reheating through particle production. As we know, uncertainties in the fundamental parameters affect the phase transition observables. I will present how predictions drastically change in these scenarios taking into account these uncertainties. I will present some results using WallGo and the limitations we have found using it.

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