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Type II seesaw: vacuum stability, phase transitionsand gravitational waves

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Type II seesaw provides an attractive way to account for the observed light neutrino masses by adding a scalar triplet to the Standard Model. Due to a larger scalar sector, the vacuum structure of the model is richer and first-order phase transitions become available. We study (meta)stability of the electroweak vacuum, cosmic phase transitions and gravitational waves in the type II seesaw model. We find that there are no 'panic' vacua for realistic parameter space, but there is parameter space where electroweak vacuum is unstable.

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