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The fine-tuning and phenomenology of the generalised NMSSM

We determine the degree of fine-tuning needed in a generalised version of the NMSSM that follows from an underlying Z4 or Z8 R-symmetry. We find that it is significantly less than is found in the MSSM or NMSSM and remarkably the minimal fine-tuning is achieved for Higgs masses of 130 GeV - 140 GeV.

Primary author: SCHMIDT-HOBERG, Kai (Oxford University)Co-author: ROSS, Graham (Oxford University)Presenter: SCHMIDT-HOBERG, Kai (Oxford University)