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Tipo: Parallel Talk

## Phenomenology of an $N=1$ split-like model resulting from the dimensional reduction of an $N=1$ , 10D $E(8)$ gauge theory over a modified flag manifold

*sabato 9 luglio 2022 10:00 (15 minuti)*

A supersymmetric extension of the Standard Model is presented, that results from the dimensional reduction of the  $N = 1$ , 10D  $E_8$  gauge group over a  $M_4 \times B_0/Z_3$  space, where  $B_0$  is the nearly-Kaehler manifold  $SU(3)/U(1) \times U(1)$  and  $Z_3$  is a freely acting discrete group on  $B_0$ . The 4D theory -after the dimensional reduction and Wilson flux breaking- is an  $N = 1$  trinification with two  $U(1)$ s. Below the unification scale the surviving theory is a split-like supersymmetric version of the Standard Model with two global  $U(1)$ s. At the TeV region we have a NMSSM-like model with promising phenomenology. The talk will be based on our work Phys.Lett.B 813 (2021) 136031, 2009.07059 [hep-ph] and an ongoing 2-loop analysis.

### In-person participation

No

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**Classifica Sessioni:** Formal Theory

**Classificazione della track:** Formal Theory