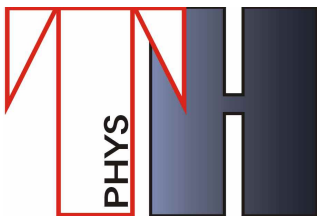
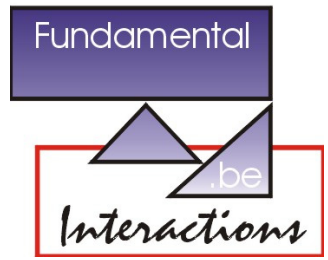
Is leptogenesis falsifiable at LHC ?

Gilles Vertongen

(in collaboration with J.M.Frère and T.Hambye)

Service de Physique Théorique
Université Libre de Bruxelles





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Leptogenesis $\equiv$ Elegant solution to solve the matter - antimatter problem, but...

- for hierarchical N_R, $m_N > 10^8$ GeV
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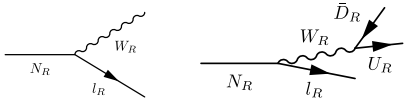

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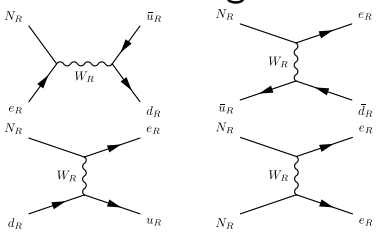

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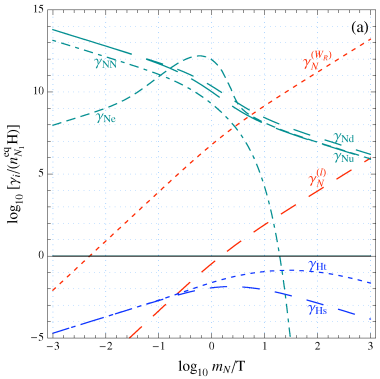

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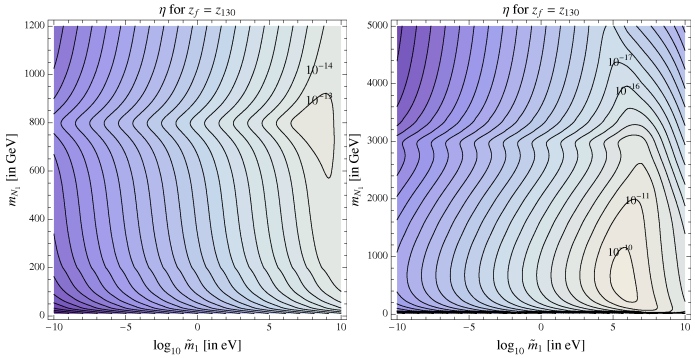
For $\varepsilon_N = 1$, successful lepto requires $\eta > 7\ 10^{-8}$



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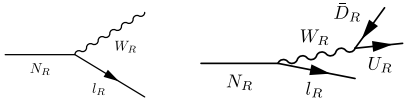

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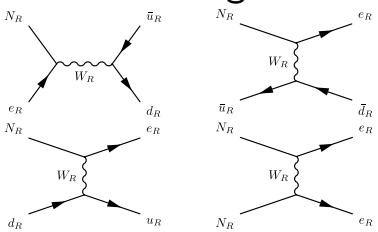

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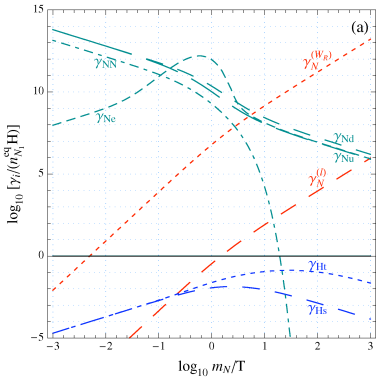

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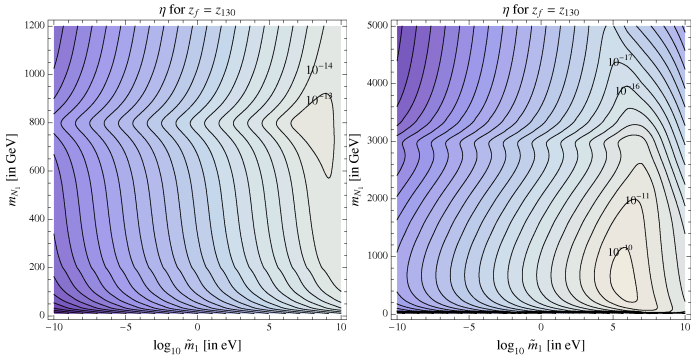

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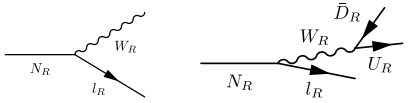

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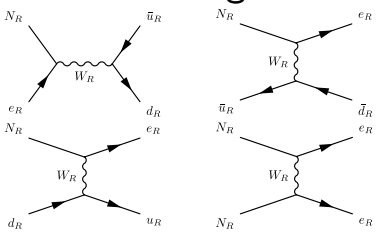

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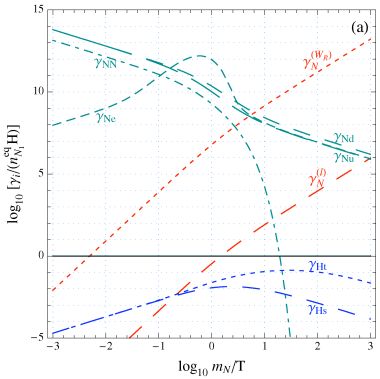

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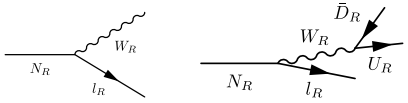

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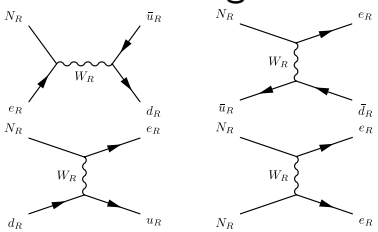

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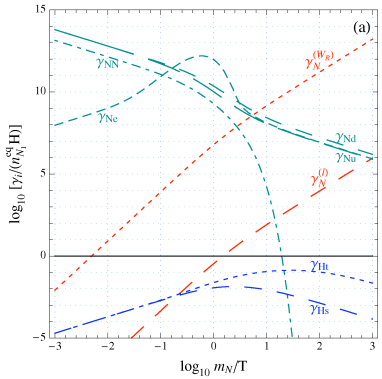

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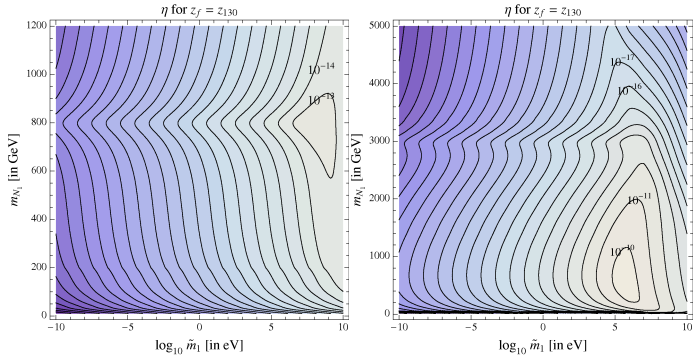

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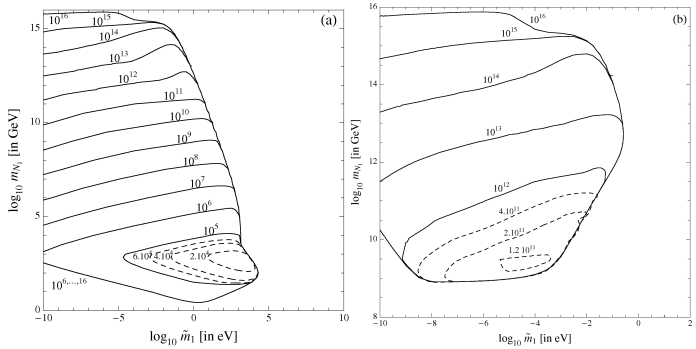

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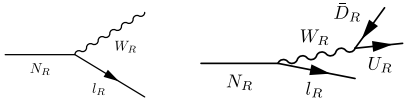

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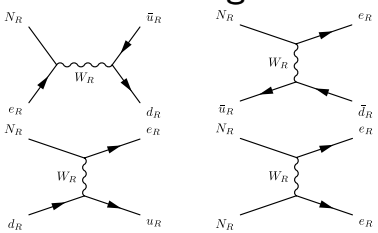

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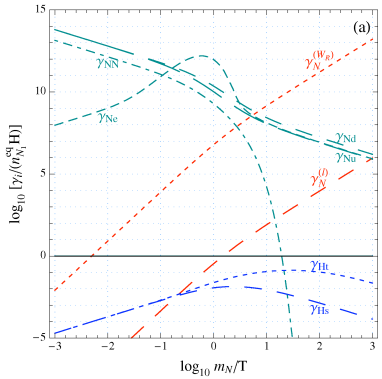

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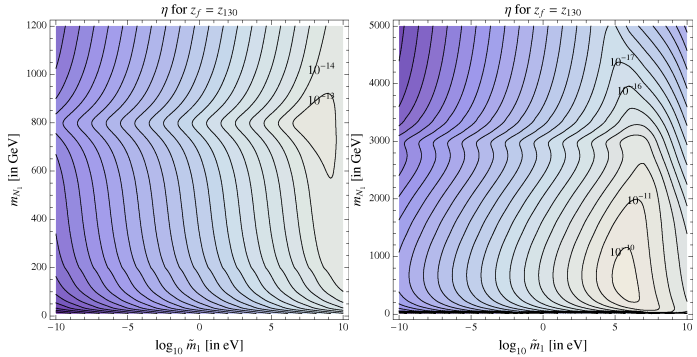

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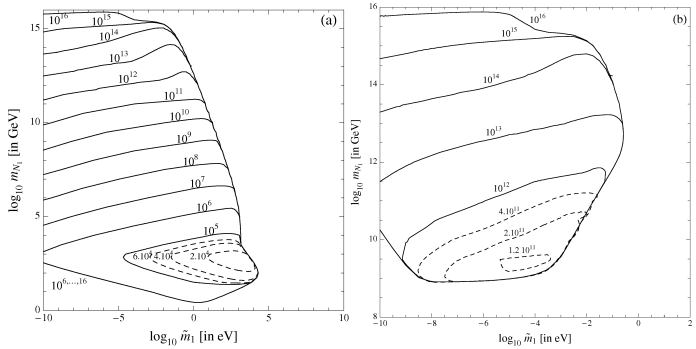

$\Rightarrow$ Successful leptogenesis if

$(m_N, m_{W_R}) > (2.6, 1.8\ 10^4)$ GeV [quasi-deg.]

$(m_N, m_{W_R}) > (6\ 10^8, 1\ 10^{11})$ GeV [hierarch.]