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EDUCATION

- 2002-2006: Bachelor of Physics - Hue University
- 2006-2008: Master of Physics - Hue University
The production and decay of mirror charged leptons and right-handed neutrino
- 2009-2016: Doctor of Philosophy in Physics - Hue University
Dynamical Electroweak Symmetry Breaking in the model of electroweak-scale right-handed neutrinos

PhD THESIS

- Motivation

- ✓ $V(\Phi^+\Phi) = \mu^2\Phi^+\Phi + \lambda(\Phi^+\Phi)^2$

- ✓ Solution: symmetry breaking is realized dynamically through condensates of bilinear fermion fields

- Results

- ✓ Conditions under which the condensates get formed in the Higgs- Yukawa system

- ✓ The evolution of the Yukawa couplings at the one-loop level and constraint their initial values so that the condition for condensate formation occurs at an energy scale of $O(1 \text{ T eV})$

- ✓ The electroweak symmetry breaking is then driven by fermion bilinear condensates at that scale.

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- Motivation

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- Results

This study actually provides an interesting result. First, a model of DEWSB was provided where ν_R 's and mirror quarks obtained dynamical masses proportional to Λ_{EW} . The other interesting feature of this work is that within the framework of DEWSB, the induced VEV of ϕ_S would be naturally smaller than the electroweak scale because of the smallness of g_{Sl} . This implies that $m_D \ll M_R$ and the light neutrinos are naturally light. Last but not least, there is also a recent interest concerning the possibility that the Higgs boson is a composite of neutrinos.¹⁸