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Electroweak Symmetry Restoration at High Energies

Friday, 9 January 2026 15:00 (1 hour)

With the milestone discovery of the Higgs boson at the LHC, detailed study of its properties becomes a high priority for collider physics. After a brief overview of the properties of the longitudinal gauge bosons and the Higgs boson, we revisit the Goldstone boson equivalence theorem and define the "electroweak symmetry restoration"(EWSR) quantitatively. We present some examples to examine the EWSR via the processes with "radiation amplitude zeros"by separating out the gauge sector and the scalar section. Finally, we comment on what we learn from testing the EWSR,and make some remarks on the SM at high energies in light of the UV completion.

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