

# Why go beyond the standard model

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The Standard Model of particle physics has withstood experimental challenges since 1960s, but has started to show its age. I present why I believe that we need to go beyond the standard model based on both empirical and theoretical puzzles.

I discuss the convergence of many approaches and scientific questions in particle physics at the TeV energy scale.

I list four categories of big questions, "Horizontal," "Vertical," "Heaven," and "Hell," and how these questions may be addressed at near-future experiments and theoretical developments.