

Using Quantum Fluctuations to probe the
fundamentals of Nature

Quantum Fluctuations



tiny footprints of
possible new
particles



Challenge:

Disentangle new effects from ordinary SM ones!



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Precision Matters!



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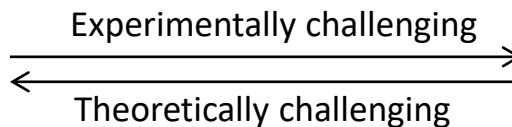
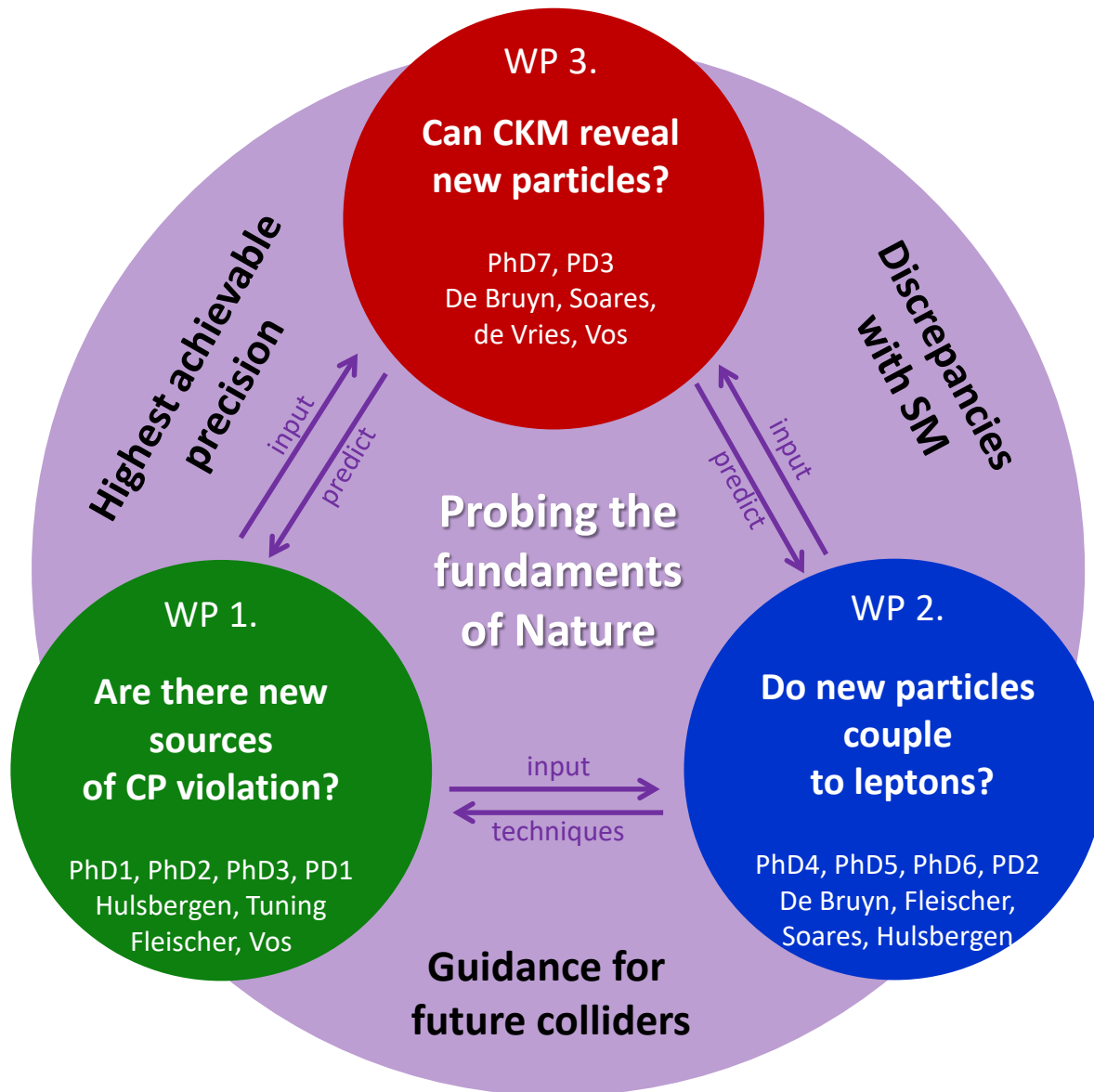
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Puzzles in Particles Physics

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Discrepancies between calculations and
measurements





Precision Matters!