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# Exploring the smallest things with the largest microscopes

*Tuesday 23 September 2025 08:30 (30 minutes)*

This talk is about a journey of particle physicists in searching for the most fundamental unit (or the ultimate building blocks) of matter and their properties. Great experiments of the 20th century have led to the discovery of ever-smaller entities that make up what were once thought to be indivisible particles. Moreover, this theory of the very small has been shown to be intimately connected to the largest scales imaginable –cosmology and the beginnings of the universe. Despite these considerable successes, this current theory nevertheless has within it the seeds of its own demise and is predicted to break down when probed at even smaller scales. By using our increased understanding, we continue to peel away at the more hidden layers of truth with the hope of discovering a more elegant and complete theory.

## Footnotes

## Funding Agency

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