

## > Allgemeines Physikalisches Kolloquium

- > Inaugurationsfeier des Graduiertenkollegs 2149
- > Donnerstag, 26.11.2015 um 16 Uhr

## Prof. Dr. Stephan Paul

Physik-Department, Technische Universität München und Exzellenzcluster "Origin of the Universe"



## Back to the future - How future experiments can tell us about the past of our Universe

Since several decades, we know that the path to the understanding of our early Universe and its evolution leads right through our physics laboratories. More recently, it has become evident that we cannot single out one specific key measurement. Progress requires deeper understandings of well-known forces as well as the hunt for invisible particles and very rare processes. They all are related to different stages in the evolution of the Universe, like violation of basic symmetries, phase transitions, the search for dark matter or dark energy.

Who will be first, which experiments will celebrate a major breakthrough? We live through exciting times, where scientists push the exploration to ever larger and ever smaller distance scales, for both extremes to answer the same question: How did we get here?