



Contribution ID: 623

Type: Talk

From the infinitesimal to the infinite with high energy particle colliders

One of the goals of particle physics is to explain the structure of matter at the smallest distance scales. For decades, the properties of the basic building blocks of matter have been investigated in ever greater detail. However, even today some profound but simple questions, such as the origins of dark matter in the universe, remain unanswered. The attempt to understand the material world around us in the simplest possible terms has involved ingenious feats of scientific sleuthing. Such fundamental questions are being addressed by using high-energy particle colliders. These energetic collisions provide, for a brief instant, the energy necessary to produce new forms of matter, as was done a fraction of a second after the big bang. This presentation will illustrate how we use the very large-scale colliders to probe the incredibly small, which can provide answers to questions on a universal scale!

Primary author: VINCTER, Manuella

Presenter: VINCTER, Manuella

Session Classification: Plenary session