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**Interacting Dark Energy and Dark Matter: theoretical and
observational developments**

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In this talk I discuss the matter content of the Universe and the amazing Dark Sector comprising more than 95% of the Universe. Furthermore, I advocate the possibility to describe the Dark Sector by means of new particles and fields, what will inexorably lead to internal interactions inside that Sector. This would unravel a completely unknown physics with unforeseen possibilities. Finally, discussions about how to materialize means of effectively confirming such hypothesis by means of observations are brought into the present arena.