Kondo effect: an old problem, some new aspects

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Kondo effect was discovered more than 50 years ago, and it is still a very active field of research with implications in a large variety of systems. After the 1st explanation by Kondo, the single impurity Kondo model was a playground for many new theoretical techniques in the years 1970-1990. Many extensions of this model have been studied to describe magnetic and superconducting properties of heavy fermions, and in the last 20 years, Kondo effect in quantum dots has been a very active topics.

In this talk, I will make a short historical review and describe several actual topics related to Kondo effect, and motivated by the the study of new compounds.