



## Avviso di Seminario

# **Non-standard hadrons and multiquark states in LHCb**

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Aula A, 15:00-16:00***

Hadron and quarkonia spectroscopy has recently got a renewed interest due to the discovery of several missing states and numerous unexpected, non-standard and quarkonium-like resonances. Many studies were performed at Charm and Beauty factories, at Tevatron and more recently at the LHC experiments. While the conventional  $q$  anti- $q$  states are well described by phenomenological potential models, many of the newly discovered quarkonium-like mesons do not seem to fit into the  $q$  anti- $q$  conventional spectrum. There is an increasing evidence that some of these new states are "exotic", that means new forms of hadronic matter such as mesonic molecules, tetraquarks or pentaquarks, hybrid mesons and also hadroquarkonium. In this seminar the recent activities of the LHCb experiment in this field are described together with the outlook for Run II of the LHC. The recent results on  $P_c(4450)$  and  $P_c(4380)$  pentaquarks and  $Z(4430)$  tetraquark among others, will be discussed in detail.