

GLUEBALLS AND CHARMONIUM: LATTICE QCD, EXPERIMENT AND PHENOMENOLOGY

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ECT* - Villa Tambosi, Villazzano

The study of charmonium, a system containing a charm quark-anti-quark pair under-went a revolution after a number of entirely unexpected narrow resonances called the X, Y and Zs were discovered by experiments at the start of the new millennium. The nature of these resonances is still unclear. Similarly, interest in glueballs, hadrons made predominantly of confined gluons, has recently been rekindled. Extensive experimental studies by LHCb at CERN, Belle II at the SuperKEKB B-factory, BESIII at BEPC and in the long-term future by PANDA at FAIR raise a number of challenging physics questions for theory. The aim of the workshop is to bring together experts in the fields of lattice QCD, experimental particle physics and phenomenology who are investigating properties of charmonium and glueballs from different angles. Topics to be addressed are the experimental searches for charmonium and glueballs at colliders (BESIII, LHCb, GlueX), the current status of lattice computations and the use of effective theories

MAIN TOPICS

- Glueballs
- Exotic Charmonia
- Radiative Charmonium-Decays
- Heavy Tetraquarks

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