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Heavy Exotics: Concepts, Insights and Perspectives¹

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In the past decade, lots of hadrons were discovered especially in the heavy quarkonium mass ranges that cannot fit into the level scheme provided by the traditional quark models. In the talk I will review some of the most popular proposals for the nature of these so-called XYZ states, including hadronic molecules, hadro-quarkonia and tetraquarks, as well as the non-trivial predictions that can be derived from them. Based on these together with the experimental prospects it is fair to expect significant progress towards a deeper understanding of the XYZ states in the near future.

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