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Charging up the XYZ spectrum: recent experimental developments in charmonium spectroscopy

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Over the last decade many new states, often dubbed X, Y, or Z, have been discovered in the excited charmonium spectrum. It has long been noted that several of these states have masses, widths, or decay modes that seem to be inconsistent with a simple quark-antiquark ($c\bar{c}$) interpretation. In the past year, the spectrum of XYZ states has become broader with the discovery of multiple structures in the charmonium system that have electric charge, and therefore cannot be $c\bar{c}$ mesons. In this talk, I will review the recent developments in excited charmonium spectroscopy using data collected with the BESIII, Belle, and CLEO-c detectors. The results will be discussed in the context of both the known charmonium and bottomonium spectra, and prospects for future study will be presented.