Advances in the studies of the nucleon resonance spectrum in experiments with electromagnetic probes.

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The studies of the nucleon resonance spectrum with a focus on the search for new baryon states for a long time remain the challenging and hot topic in hadron physics. Full resonance spectrum plays a critical role in the evolution of $\approx$ millisecond age Universe in the transition from the quark-gluon to the hadron gas phases. Recent lQCD evaluations of the N^*-spectrum from the first QCD principles suggest existence of as much new excited nucleon states as expected in the quark models employed SU(6)xO(3) symmetry. Discovery of several new nucleon resonances in the global analysis of exclusive meson photoproduction off proton data with decisive impact from the CLAS measurements of exclusive KY photoproduction will be presented. Combined studies of $\pi^+\pi^- p$ photo- and electroproduction data from CLAS revealed strong evidence for existence of another N'(1720)$3/2^+$ new baryon state. The information on electroexcitation amplitude of this state has become available for the first time offering the insight to the new baryon state structure. The prospects for the search of the new state of baryon matter with glue as the structural component in the upcoming experiments with the CLAS12 detector will be outlined.

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