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Study of $Z\gamma$ Helicity Distributions at CMS[1] IRAKLI CHAKABERIA, Kansas State University — Measurement of the production of electroweak gauge bosons (γ, W, Z) provides important tests of the standard model. The production of a diboson final state at the Large Hadron Collider (LHC) can occur by quark-antiquark annihilation (t-channel) or by boson self-interaction (s-channel). The s-channel production provides a unique probe of triple gauge boson couplings (TGC) and the effects of new physics on these couplings. CMS detector provides a very high resolution measurement of kinematic variables of the final state particles. Multi-variable analysis using full kinematic picture may increase the sensitivity to anomalous TGC. I present a study of the helicity angle distributions in the $Z\gamma$ production process at the CMS experiment at the CERN LHC.

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