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Study of  $Z\gamma$  Helicity Distributions at CMS IRAKLI CHAKABERIA, Kansas State University, CMS COLLABORATION — Measurement of the production of electroweak gauge bosons ( $\gamma$ , 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. I present a study of the helicity angle distributions in the  $Z\gamma$  production process at the CMS experiment at the CERN LHC and an examination of the sensitivity of these distributions to new physics.

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