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TeV Observation of Extragalactic Gamma-Ray Sources

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The recent years have brought incredible progress observing the gamma-ray sky above 100 GeV. One of the reasons is that Cherenkov telescopes such as H.E.S.S., MAGIC, and VERITAS have come online with ten times higher sensitivity in comparison to their predecessors and with an expanded energy range. These improvements resulted in a jump in the number of detected extragalactic sources, which now also includes two starburst galaxies, the first non-blazars in the extragalactic VHE sky. Furthermore, variability can and has been observed down to timescales of a few minutes in the some of the strongest sources. Correlation studies with other wavelengths have continued to prove to be a powerful tool and in some cases provided interesting constraints on the origin of the gamma-rays and their emission mechanisms. Gamma-rays from extragalactic objects also provide insight into some questions in cosmology. I will review the recent progress that has been made by observations of the extragalactic sky with imaging atmospheric Cherenkov telescopes.