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Variability of Extragalactic Very High Energy Gamma-ray Emitters

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The third generation of Very High Energy (VHE; $E > 100$ GeV) gamma-ray telescopes (e.g. HESS, VERITAS & MAGIC) are an order of magnitude more sensitive than their predecessors. Over the past eight years, observations with these instruments have increased the catalog of VHE emitters to more than 110 sources, of which ~ 40 are extragalactic. While only limited variability is found from many of the newly discovered VHE emitters, the more sensitive studies of the previously known extragalactic VHE emitters have yielded unprecedented results. Recent highlights include the discovery of minute-scale VHE flux variability, significant VHE spectral changes on sub-hour time-scales, and strong correlations of these rapid VHE variations (flux & spectrum) with those simultaneously observed at X-ray and optical energies. A summary of the variability properties of extragalactic VHE emitters and their scientific implications will be presented.