The 3C Extragalactic Radio Sky: Legacy of the Third Cambridge Catalogue



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The Quasi-Quasar 3C 120

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The broad-line radio galaxy 3C 120 has the properties of a Seyfert galaxy at optical through X-ray frequencies, and a quasar-like blazar at radio frequencies. It is one of a very small number - and probably the best - of active galaxies suitable for probing the relationship between the accretion disk/corona and a relativistic jet. We recently monitored 3C 120 with Swift at optical/UV/X-ray frequencies alongside our long-standing VLBA monthly imaging program and monitoring of the 37 GHz flux at the Metsahovi Radio Observatory. The changing optical-UV spectrum reveals the presence of a component with an inverted spectrum, which may be synchrotron radiation from electrons with a nearly mono-energetic (roughly 10 GeV) distribution. A flare from

optical to X-ray frequencies appears to have originated near the radio core 0.5-1.3 pc from the black hole. Analysis of the optical-X-ray light curves disfavors the proposal that the inner accretion disk is disrupted prior to the launch of a superluminal knot seen in the VLBA images.

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Classifica Sessioni: The most famous 3C sources