Relativistic Ejections Associated with High-energy Outbursts in the M87 Jet

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Variability results in Harris et al. (2003; 2006) & Perlman et al. (2003)

Multiband Variability in HST-1
(jet knot >120 pc from Nucleus)

VLBA Detection of Multiple Superluminal Ejections in `HST-1`

Genesis of superluminal ejections and multi-band variability isolated in the jet >120 pc from central engine.
Common wisdom assumes this happens much closer to (few-10 pc) and somehow related to the central supermassive black hole/accretion disk system.

Background: Hubble Heritage Image