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Title:	BL Lac object OJ 287:
Other Titles:	exploring a complete spectrum of issues concerning relativistic jets and accretion
Authors:	Pankaj, Kushwaha (/jspui/browse?type=author&value=Pankaj%2C+Kushwaha)
Keywords:	BL Lac objects galaxies radiation mechanisms gamma-rays
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Citation:	Journal of Astrophysics and Astronomy, 43(2), 79.
Abstract:	<p>BL Lacertae (BL Lac) object OJ 287 is one of the most dynamic blazars across the directly accessible observational windows: spectral, timing, polarization and imaging. Apart from behaviors, considered the characteristics of blazars, it exhibits peculiar timing features like quasi-periodicity in optical flux as well as radio-detected knots position and has shown diverse transient spectral features like a new broadband continuum dominated activity phase, Seyfert-like soft-X-ray excess, highly transient iron line absorption feature, a thermal-like continuum-dominated optical phase, large optical polarization swings associated with one of the timing features, etc., that are rare in blazars and contrary to currently prevailing view of BL Lacs. Theoretical considerations, supported by existing observations invoke scenarios involving a dynamical interplay of accretion and/or strong-gravity-induced events (tidal forces) in a binary supermassive black hole (SMBH) scenario to impact-induced jet and only jet activities. Many of these scenarios have some definite and quite distinctive observationally testable predictions/claims. These considerations make OJ 287 the only BL Lac to have an activity phase with dominance related to accretion and/or accretion-perturbation-induced jet activities. We present a brief overview of the unique spectral features and discuss the potential of these features in exploring not only relativistic jet physics, but also issues pertaining to accretion and accretion-regulated jet activities, i.e., the whole spectrum of issues related to the jet-accretion paradigm.</p>
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