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Title:	Long-term Multiband Near-infrared Variability of the Blazar OJ 287 during 2007–2021
Authors:	Kushwaha, Pankaj (/jspui/browse?type=author&value=Kushwaha%2C+Pankaj)
Keywords:	Multiband Variability Near-infrared
Issue Date:	2022
Publisher:	The Institute of Physics (IOP)
Citation:	Astrophysical Journal Supplement Series, 260 (2), 1538–4365.
Abstract:	We present the most extensive and well-sampled long-term multiband near-infrared (NIR) temporal and spectral variability study of OJ 287, considered to be the best candidate binary supermassive black hole blazar. These observations were made between 2007 December and 2021 November. The source underwent ~2–2.5 mag variations in the J, H, and Ks NIR bands. Over these long-term timescales there were no systematic trends in either flux or spectral evolution with time or with the source's flux states. However, on shorter timescales, there are significant variations in flux and spectra indicative of strong changes during different activity states. The NIR spectral energy distributions show diverse facets at each flux state, from the lowest to the highest. The spectra are, in general, consistent with a power-law spectral profile (within 10%) and many of them indicate minor changes (observationally insignificant) in the shift of the peak. The NIR spectra generally steepen during bright phases. We briefly discuss these behaviors in the context of blazar emission scenarios/mechanisms, OJ 287's well-known traditional behavior, and implications for models of the source central engine invoked for its long-term optical semiperiodic variations.
Description:	Only IISER Mohali authors are available in the record.
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