

Abstract Submitted
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Multifrequency VLBA Polarization Imaging of 3CR Lobe-dominated Quasars¹ DAVID HOUGH, Trinity U., DANIEL HOMAN, Denison U. — Studies of the parsec-scale radio polarization properties of quasars with intense radio cores beamed toward Earth have driven the development of models of relativistic jets and their environment. These models predict a strong orientation dependence of many source properties. To test these models, we selected a sample of 7 mildly beamed cores in lobe-dominated quasars from the 3CR survey with a wide orientation range. Dual-polarization VLBA observations at 5, 8, and 15 GHz were conducted between 1996 and 1999. Two sources exhibit long, faint jet extensions with longitudinal magnetic fields, consistent with shear effects. Four sources show significant rotation measures in their cores/inner jets that probe the surrounding Faraday screen. There is evidence for a helical jet in 3C245, a magnetized sheath in 3C207, and a transverse magnetic field associated with a jet-cloud collisional shock in 3C334. Implications for source models will be discussed.

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David Hough
Trinity U.

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