

Abstract Submitted  
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**Correlation of Parsec-scale Jet Speed and Strength of Radio Nucleus in Lobe-dominated Quasars**<sup>1</sup> DAVID HOUGH, ERIC DANIELSON, ALEXANDER WEBB, Trinity University — Statistical studies of samples of quasars with a wide range of jet orientations can provide valuable constraints on relativistic jet models. We are engaged in a long-term study of 25 lobe-dominated quasars from the 3CR survey. To date, VLBI observations of the parsec-scale jets in their nuclei have been used to measure (or set limits on) apparent transverse jet speeds in 14 objects. These speeds range from 0 to  $8c$  (for Hubble constant  $70 \text{ km/s/Mpc}$ ), which implies bulk Lorentz factors ranging up to 8. We find that these speeds correlate very well (99 per cent confidence level) with the fractional strength of the radio nucleus, which is defined as the ratio of nuclear to extended emission at 5 GHz emitted. There is no significant correlation with an estimated pseudoangle of each jet to our line of sight, and absolutely no correlation with projected linear size. We will discuss implications for relativistic jet models.

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