

Abstract Submitted
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A Three-decade X-band VLBI Study of the Nuclei in the Lobe-dominated Quasars 3C207 and 3C263¹ DAVID HOUGH, Trinity University — We report X-band VLBI observations of the nuclei in the lobe-dominated quasars 3C207 and 3C263 from 1981 to 2010, mostly obtained with the NRAO VLBA. The goal is to follow flux density outbursts and to fully determine the jet morphology and kinematics on 1-100 pc scales. In 3C207, the core region has flux outbursts roughly every 7 yr, which are actually double outbursts from a stationary true core and a swinging component 0.5 mas apart. The position angle (PA) of the swinging component varies by 40 degrees, while the PAs of the jet components span 25 degrees. The jet extends to 25 mas. Average superluminal speeds are about 10c. One component shows apparent acceleration from 7c to 14c at 2-3 mas from the true core, in a jet recollimation zone that redirects the flow toward PA 90 degrees. Individual jet components expand until reaching the recollimation zone. In 3C263, some of the same phenomena are seen, including non-radial ejection of jet components, superluminal motion, and apparent acceleration, but to a lesser degree. Possible physical interpretations involving, e.g., jet precession and a binary black hole system, will be discussed. (This abstract repeats and extends results in Hough, D. 2012, BAPS, 57, 11, for which the oral presentation was cancelled.)

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David Hough
Trinity University

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