

Abstract Submitted
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Simulations of Polarization from Radio Jet Cores of Active Galactic Nuclei¹ BRIAN WELCH, DANIEL HOMAN, Denison University — We present results of simulations of the polarization properties of the parsec-scale radio cores from a complete sample of Active Galactic Nuclei (AGN). The jet cores were modelled as a cube of uniform plasma with magnetic field which could vary from sub-cell to sub-cell within the cube. The full equations for radiative transfer were solved numerically to find the polarization emerging from the cube. We found that the circular and linear polarization distributions from our sample could be reproduced either through an initially stochastic magnetic field with an induced shock or with some initial imposed field order. We will discuss the constraints and limitations of these competing models.

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