

Abstract Submitted
for the PSF09 Meeting of
The American Physical Society

Stellar Coronal Physics with VLBI Imaging WILLIAM PETERSON,
ROBERT MUTEL, University of Iowa — We present the results of synoptic high-resolution imaging studies of two active binary star systems. Both were conducted using the VLBA-HSA at 15 GHz, making them the first images of extrasolar stars capable of discerning structure at scales smaller than a stellar diameter. Images revealed a giant coronal loop on Algol, filled with gyrosynchrotron flux at high activity levels and emitting from only the feet of the loop during quiescent epochs. UX Ari displays similar activity levels to Algol, but the components do not fill their Roche Lobes, making it an optimal comparison case for the role of mass transfer in the formation of global magnetic fields.

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Date submitted: 05 Nov 2009

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