Disk Accretion onto Precessing Binary Black Holes: Simulations in Full GR[1] JANE BRIGHT, VASILEIOS PASCHALIDIS, Univ of Arizona — We perform magnetohydrodynamic simulations in full general relativity of disk accretion onto equal mass, precessing binary black holes. The precession leads to misalignment between the orbital angular momentum of the binary and that of the disk, causing the black holes to plunge through the initial orbital plane of the disk twice per orbit. We discuss the implications of precession on the properties of the system, such as periodicities in the accretion rate and electromagnetic output, the emergence of jet outflows, and effects on the disk post-merger.

Jane Bright
Univ of Arizona

Date submitted: 10 Jan 2020   Electronic form version 1.4