

ACCRETION TO STARS WITH COMPLEX MAGNETIC FIELDS .

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We investigated disk accretion to rotating stars with complex magnetic fields in full 3D MHD simulations. These cases include pure quadrupole field, aligned or misaligned dipole plus quadrupole field, dipole field displaced from the star's center. Simulations have shown that the structure of the funnel streams and associated hot spots have specific features related

to the magnetic field configurations. For example, in the case of dipole plus quadrupole field, most of the matter flows through the quadrupole "belt" forming a ring-shaped hot spots. This is quite different from pure dipole case, which shows two funnel streams and two arch-like spots near the magnetic poles. Some other more complicated configurations will also be presented.