**Magnetic Tower**

- Low density magnetically dominated
- "cavity" grows with time
- Toroidal magnetic pressure pushes flow ahead of the rising tower
- Field || to flow on axis, changing to toroidal field at edge.
- In principle, could remain magnetically dominated out to observable scales, so flow is still slaved to magnetic field there
- Field primarily toroidal at large r

**Magneto-centrifugal Launch**

- Magnetically dominated at base (and thus resembles magnetic tower there) base but becomes flow dominated at observable scales
- Flow is centrifugally launched onto field lines from disk, then pressure from toroidal magnetic pressure accelerates flow
- Field at large scales is slaved to flow on observed scales: e.g. if jet has nonuniform outflow speed, field can be stretched along jet direction, so field could be less dominantly toroidal than for magnetic tower

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**e.g. Lynden-Bell 96,03**

Magnetic field strength: [ [$\mu$G]]

15.00 25.00 35.00 45.00 55.00

Huart-Espinosa et al. 2012

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**Blandford Payne (82); Pellitier & Pudritz (92)**