ASTR 680
Practice questions for lecture 19
Magnetic accretion

1. Consider a portion of the interstellar medium with a temperature of 10^4 K and a density of 1 particle per cm^3. How slowly does a neutron star with a magnetic field of 10^{12} G have to rotate such that the Alfven radius for matter coming in at the Bondi-Hoyle rate is less than the corotation radius, and hence interstellar matter can accrete onto the star?