

**ASTR 680**  
**Practice questions for lecture 18**  
**Rotation-powered pulsars**

1. The short-term period change of the most accurate atomic clocks is about  $10^{-15}$  s/s. For a millisecond pulsar with a rotation period of 2 ms, what is the magnetic field that it would have to produce such a change, if the field is orthogonal to the rotation axis? How does this compare with real MSP field strengths?