

**Extra Credit #1 (Optional). Due Thurs 4/9**

1. Why is "global hyperbolicity" supposed to be a necessary condition for a spacetime to be physically possible?
2. What is the "Cosmic Censureship Hypothesis" and how might M-H spacetimes violate it?
3. What is the difference between a regular Turing machine and a simple infinity Turing machine? Why can't a simple infinity Turing machine solve the Decision Problem for mixed quantifier statements in arithmetic?
4. What is an AD spacetime? How can the Decision Problem for arithmetic be solved in an AD spacetime?