

Assignment 6: Nuclear physics

1. How does the equation $E = Mc^2$ explain the process of nuclear fission? How does it explain the process of nuclear fusion? (*Hint*: The role of "binding energy" is essential to both explanations.)
2. Why is a cost-effective controlled nuclear fusion process still a technologically hard problem to solve? Briefly explain the two major approaches toward solving this problem.
3. In what sense does a "conversion" interpretation of mass/energy equivalence reject a "spacetime" interpretation?