# Mechanics

4. A mass moves under the influence of a force $F$ that depends on distance $r$ according to $F = -Ar^{\alpha-1}$ where $A > 0$ and $\alpha \neq 0$ or 1. Take the potential energy to be zero at the origin. What are the equations of motion? Is energy conserved in this system? Is angular momentum conserved?

No solution given for this problem