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Two bodies gravitational systems with variable mass and damping-antidamping effect due to star wind GUSTAVO LOPEZ VELAZQUEZ, ESMERALDA JUAREZ, Guadalajara University — We study two-bodies gravitational problem where the mass of one of the bodies varies and suffers a damping-anti damping effect due to star wind during its motion. A constant of motion, a Lagrangian and a Hamiltonian are given for the radial motion of the system, and the period of the body is studied using the constant of motion of the system. An application to the comet motion is given, using the comet Halley as an example.

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