The influence of Mass-loss on the orbit of comet SL9

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Using the Jeans problem and the Fermi problem of two bodies with variable masses, the influence of solar and cometary mass-loss on the orbit of comet SL9 is dicussed in this paper. It is shown that solar and cometary mass-loss both will cause the secular and periodic terms in the semimajor axis aof comet SL9. The influence of solar mass-loss on the orbit of comet SL9 is very small and it may be omitted. But the influence of mass-loss of comet SL9 itself on its orbit is large and it may cause the secular variation in a to be about 1000km every year. The cometary mass-loss will influence the time and place of the collision of the comet SL9 with Jupiter. Therefore it should be considered in the orbit calculation and prediction of comet SL9