Meteor Stream Dynamics

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Meteors are seen as streaks of light in the upper atmosphere when they collide with the Earth. The parent comets of these meteoroids, fortunately, tend not to colide with the Earth. Hence there has been orbital changes from one to the other so as to cause a relative movement of the nodes of the meteor orbits and that of the comet, implying changes in the energy and/or angular momentum. In this review, we will discuss these changes and their causes and through this place limits on the ejection process. Other forces also come into play in the longer term, for example perturbations from the planets, and the effects of radiatio[pressure and Poynting-Robertson drag. The effect of these will also be discussed with a view to understanding both the observed evolution in some meteor streams. Finally we will consider the final fate of meteor streams as contributors to the interplanetary dust complex..