

The need for robust method to identify meteor showers

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In a recent work Guennoun et al. (2019) showed the difficulty to associate a parent body with a meteor shower, on the basis of serendipitous associations between meteors and asteroids as soon as there is a large number of bodies. We will first briefly recall the principles of this analysis and the results. As a following step, we highlight some questions regarding the existence of meteor showers as they are usually defined and examine the dynamical consequences the presence of almost one thousand showers (if real) would have. We conclude that either our view of the Earth environment is lacking serious background, or that the definition of a meteor shower must be revised.