

Historical Superbolides

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Abstract

The amount of impacts of 50 m – 1 cm asteroid with the Earth is a typical issue of controversy. Explosions in upper atmosphere and lunar impacts suggest that could have more impacts than is currently accepted. A “new” information source data can be fireballs appeared in historical press. Some of these reports indicate the presence of pressure waves or damage that may help estimate the energy of the event. We analysed more than 50 years of the archive of the New York Times and found a number of abnormally clustered events that can not be explained by a Poisson distribution. We have found at least two big concentrations not associated to any major meteor shower. One around the actual 23rd of July and other on the 14th of February. This second major concentration it is really close to the Chelyabinsk event date, so it is probable that there they are related. The preliminary results were published in Sánchez de Miguel, A., Ocaña, F., Zamora, S., et al. 2014, in Garzón Guerrero J. A., López Sánchez A. R., eds, Libro de Actas del XXI Congreso Estatal de Astronomía. Granada, Spain.