The "CAmera for BEtter Resolution" (CABERNET): First scientific results (CABERNET): First scientific results

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The "CAmera for BEtter Resolution" (CABERNET) is a network of 3 stations with cameras dedicated to accurate measurement of meteor trajectories in the Earth's atmosphere. This network is located in Southern France (Pic du Midi observatory, Guzet resort) and Spain (Montsec Planetarium) since 2013. We present here the first scientific results. In particular, the determination of the velocity is a crucial point to derive the heliocentric orbit of the meteoroid. Our method based on the measurement of space frequencies is presented. Though the development of the pipeline will last for another few months in order to fully optimize it, we discuss the point of amelioration and compare our results with those from other setups.

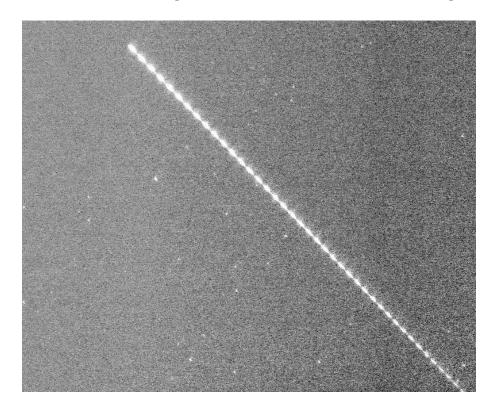


Figure: Meteor observed with the CABERNET camera located at the Pic du Midi observatory, on July 1, 2013.

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References: Atreya et al. 2012, MNRAS, 423, Issue 3, pp. 2840–2844; Rudawska et al. 2012, AA, 541, id.A2; Bouley et al. 2011, 42nd LPSC, No. 1608, p.1390.