Photometry and imaging of Comet 103P/Hartley in the 2010?2011 apparition

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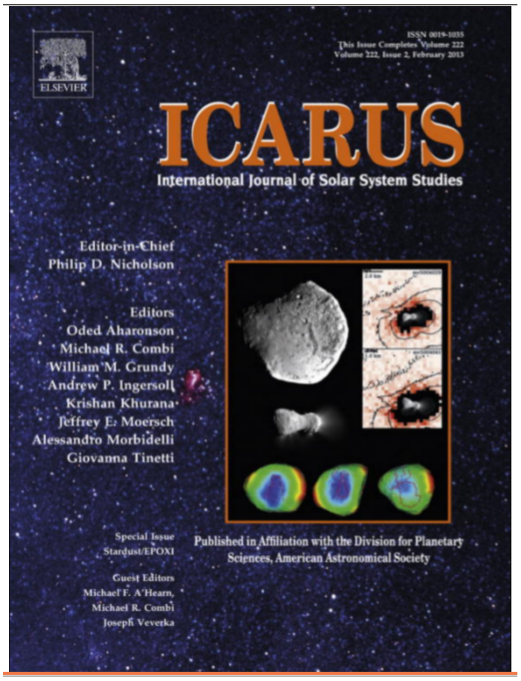
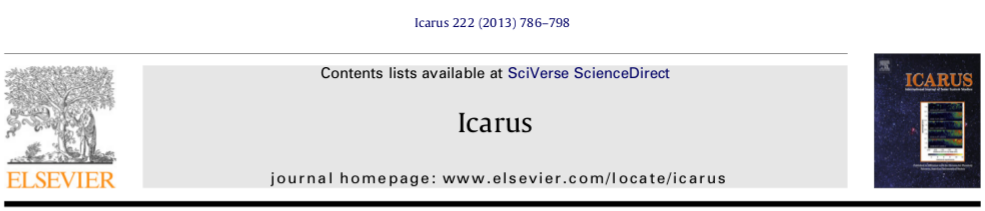
Un altro traguardo raggiunto dagli astrofili che collaborano con la ricerca.

Nell'ambito del Progetto CARA [1] due nostri soci (Giannantonio Milani e Carlo Vinante) sono coinvolti in progetti di ricerca internazionali, sulle comete.
In pubblicazione sul numero di Febbraio di Icarus (Elsevier) un articolo sulla cometa 103P dal titolo **Photometry and imaging of Comet 103P/Hartley in the 2010?2011 apparition**.

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Photometry and imaging of Comet 103P/Hartley in the 2010–2011 apparition

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The results of a CARA (Cometary Archive for Afq) campaign on Co
main goal was to monitor extensively the comet during the appari
tometry, as a support of EPOXI mission.

[2]

a b s t r a c t

The results of a CARA (Cometary Archive for Af?) campaign on Comet 103P/Hartley 2 are presented. The main goal was to monitor extensively the comet during the apparition with CCD R and I imaging and photometry, as a support of EPOXI mission.

The Af? quantity showed a progressively rising ascending branch, followed by an apparent flat maximum

that lasted for 2 months, from about -10 to +50 days from perihelion. In this period, Afq peaked at around 100 cm in R band with strong short term fluctuations between 70 and 140 cm. Early signs of activity were detectable well before perihelion (about 80?90 days before) and a random variability is also present in the descending branch after perihelion. Three post perihelion data points (between +55 and +61 days) from the 1997?1998 apparition show a bit higher Af? value of our observation and a similar fast variation.

The average Af? behavior, corrected for the solar phase effect, is strongly asymmetric and shows a more steeper ascending branch, approaching to perihelion.

Morphology and coma asymmetry, as well as the sunward and tailward profiles are examined. An average gradient indicatively between ~ $?_{0.7}$ and $?_1$ is observed in the inner coma (? < 2000 km). Ten small amplitude outbursts have been detected and two ones were suspected.

Osservazione e Ricerca [3]

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Credits

Links:
[1] http://www.astronomia-euganea.it/drupal/aae/cara
[2] http://www.astronomia-euganea.it/drupal/sites/default/files/articoli/icarus-103p.png
[3] http://www.astronomia-euganea.it/drupal/category/attivit%C3%A0/osservazione-e-ricerca