A12a すばる望遠鏡による GRB010222 の残光観測

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The optical afterglow of a gamma ray burst GRB010222, which was alerted by BeppoSAX Team as the brightest one ever detected, was observed by Suprime-Cam of the Subaru Telescope at the Mauna Kea. The obtained R-band magnitude was 18.59 ± 0.04 at February 22.51 UT, 18.99 ± 0.04 at February 22.65 UT, and 21.76 ± 0.03 at February 25.64 UT. The light curve made from the data including reported so far shows the decay of the brightness with a broken power low, of which indices are -0.92 ± 0.01 before and -1.27 ± 0.01 after the break. The break point of the light curve is 0.73 ± 0.02 days after the burst, which is the earliest example ever observed. A brief summary of our follow-up observations, together with the importance of the optical follow-up capable by the Subaru telescope, is described in this paper.