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A genuinely short GRB from massive-star collapse

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On 26th August 2020, gamma-ray burst monitor onboard Fermi satellite was triggered by an unprecedented genuinely short burst GRB 200826A which is totally different from either of the previous strange ones. The undoubtedly short duration and its proximity, together with large f parameter, prove its genuine short-duration fact. For more metrics, we immediately exploit the prompt and afterglow data as fully as we can with and without redshift info. In addition to spike profile, huge f value and other normal spectral behaviors as a short GRB, GRB 200826A does show an incredible similarity to Type II GRBs. What need to settle down is to figure out mechanism behind it, a white dwarf-involved system a GRB in “supranova” scenario, dirty medium block the most of the radiation or Parameter-modified model of differential-rotation-induced magnetic bubbles of a new-born magnetar? we still don't know.

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