

Origin of Gamma-Ray Bursts (GRBs and SGRs)

Toshio Murakami[1]

[1] ISAS

Gamma-Ray Bursts (GRBs) were discovered in 1967 by the Vela satellite. However the short duration and the sudden explosion of GRBs made us difficult to explore the origin of GRBs. In 1997, the Italian BeppoSAX satellite discovered X-ray afterglows associated with GRBs and this enabled us to locate GRB position with an accuracy of several arc-minute. Follow-up observations by the ground based optical telescopes confirmed the distant galaxies associated with GRBs. Now GRB is thought to be a largest explosion in the universe but true progenitor of the explosion is still unknown. On the other hand, Soft Gamma-ray Repeaters (SGRs) were long thought to be one member of the GRB family but now are identified to be a neutron star with super-strong magnetic fields.

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