

GRBs as tools to probe the first stars

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GRB are produced by massive stars. Several studies considered the possibility of PopIII stars as GRB progenitors and predicted the GRB properties. Furthermore GRB afterglows are bright at any redshift and can be used as background sources to study the absorbing gas in their host galaxies and along GRB lines of sight up to the highest redshift, looking for signatures of pristine gas or gas enriched by first stars. Such studies are currently limited mostly by the characteristics of the satellites detecting GRBs. I will introduce the use of GRBs as tools to probe the first stars, and discuss the needed future capabilities to exploit GRBs at best for this kind of research.

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