

Galactic Supernova Rate from COMPTEL ^{44}Ti Gamma-line Observations

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^{44}Ti is one of the few radioactive nuclei produced in SNe events quite abundantly. Because ^{44}Ti 's short life time is comparable with the typical time between SNe events in a galaxy, the ^{44}Ti distribution in the galaxy therefore is a good diagnostic tool for probing recent SNe events in the Galaxy. We present our analysis of the COMPTEL's Cycle 1-6 ^{44}Ti gamma-line map compared with Monte Carlo simulations of SNe events in the Galaxy. Using standard Galactic SNe distribution models and theoretical SNe ^{44}Ti production, we constrain Galactic supernova rates with the COMPTEL data. We compare the results with the rates inferred from the historical supernovae in the last two millenniums.