



## **Heliospheric magnetic field increase over the last 235 years revealed by $^{44}\text{Ti}$ measurements in meteorites at the Laboratory of Monte dei Cappuccini (Torino, Italy)**

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We evaluated the long-term evolution of the heliospheric magnetic field (HMF) over the past two centuries by measuring the cosmogenic  $^{44}\text{Ti}$  activity ( $T_{1/2} = 59.2 \pm 0.6$  yr) in stone meteorites which fell between 1766 and 2001. The very low activity level of  $^{44}\text{Ti}$  activity was determined by using specific and selective configuration of large gamma-ray spectrometers (HPGe+NaI) located at the underground laboratory of Monte dei Cappuccini (OATo-INAF) in Torino, Italy.

Our results imply an overall increment of  $1.96^{+0.43}_{-0.35}$  nT over 235 years reflecting the modern Grand maximum. The HMF trend thus obtained is compared with the recent reconstructions of the near-Earth heliospheric magnetic field strength based on geomagnetic, sunspot number and cosmogenic isotope data.