

Are there critical aspects in the time, energy and angular distributions of SN1987A?

Supernova neutrinos have enormous importance for ongoing research in astrophysics, nuclear and particle physics. However, existing simulations of this complex event, although increasingly sophisticated, still do not guarantee with sufficient confidence a reliable description of the emission. In this situation, it seems important to study as accurately as possible the only such event observed so far with neutrino telescopes: those of SN1987A. With these considerations, we are setting up a refined analysis, taking into account the many acquisitions of the past decades. In this poster we present the model describing the energy distributions, in the various phases of emission, and verify its adequacy to describe the characteristics of the neutrino emission of SN1987A, namely, the distributions in energy, time and angle.

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