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Exposing Supernovae with Neutrinos HASAN YUKSEL, University of Wisconsin-Madison — The last galactic supernova occurred in the Large Magellanic Cloud in 1987 and was observed not only with photon signal, but also with neutrinos preceding the light, confirming our basic understanding of mechanism behind the explosion. Galactic supernovae are so rare that one should not expect to witness more than one in his/her lifetime. Yet they provide information on neutrino spectra and luminosities, which are crucial diagnostics of a successful explosion. In this perspective, the development of strategies to circumvent the difficulty of waiting for infrequent galactic supernovae, and providing the astronomical community with a prompt alert in case it strikes, are essential. (Based on collaborative work with S. Ando, A.B. Balantekin, J.F. Beacom.)

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