

# The new wide-band solar neutrino trigger for Super-Kamiokande

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Super-Kamiokande (SK) observes low-energy electrons induced by the elastic scattering of  $^8\text{B}$  solar neutrinos. The current 4.5 MeV kinetic energy threshold of the recoil electrons in SK leaves the transition region between vacuum and matter oscillations (with neutrino energy near 3 MeV) still partially unexplored. To study this intermediate regime, a new software trigger, the Wide-band Intelligent Trigger (WIT), has been developed to simultaneously trigger and reconstruct very low-energy electrons (above 2.5 MeV) with an efficiency close to 100%. The WIT system, comprising twelve computers and one 10 GbE network switch, has been recently installed and integrated in the online DAQ system of SK and the complete system has just begun online data testing. Prospects and validation of the WIT system are presented.

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