

XXV International Baldin Seminar on High Energy Physics Problems  
"Relativistic Nuclear Physics and Quantum Chromodynamics"



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on High Energy Physics Problems  
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## Contribution from the CP-conjugate of the Glashow resonance to the total neutrino-nucleus cross section

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The Standard Model predicts a rapid enhancement of the cross section for scattering of electron antineutrinos on electrons at energies around the  $W$  boson production threshold. This enhancement, usually referred to as the Glashow resonance, is currently searched for at the IceCube Neutrino Observatory and its discovery would be a crucial test of the lepton sector of the Standard Model. We show that the CP-conjugate of the process,  $\nu_e + e^+ \rightarrow W^+$ , contributes to the total neutrino-nucleus cross section and can, in principle, be also probed at large-volume neutrino detectors as IceCube, KM3NeT and Baikal-GVD.

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