

THE INVERSE
PROBLEM OF DISTANT NEUTRINO
DIAGNOSTICS OF INTRAREACTOR PROCESSES

*V.D. Rusov, V.O. Tarasov, D.O. Litvinov,
I.Yu. Shaaban*

Odesa National Polytechnic University
(1, Shevchenko Ave., Odesa 65044, Ukraine;
e-mail: *siiis@te.net.ua*)

S u m m a r y

Using the known experimental data, we consider the inverse problem of neutrino diagnostics of a reactor core. On the one hand, its solution allows us to restore distantly (with known accuracy) the current values of the nuclear density of each component forming the isotope composition of a nuclear fuel and, on the other hand, gives a real possibility of creating a neutrino technology for diagnosing the temporal evolution of the isotope composition of nuclear fuel and the reactor power in the on-line mode.