

Abstract Submitted  
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**The relativistic Thomas-Fermi equation for extended nuclear matter** REMO RUFFINI, MICHAEL ROTONDO, SHE-SHENG XUE, ICRANet and University of Rome “Sapienza” — The derivation of the dimensionless form of the relativistic Thomas-Fermi equation for extended nuclear matter are described, taking into due account the process of inverse beta decay. The equations of the binding energy of such a configuration are also derived. The analogy and the differences between this treatment and the classical one by Greiner, Migdal, Popov and their schools are presented.

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