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Graviton as a Grand United Gauge Boson RASULKHOZHA S. SHARAFIDDINOV, Institute of Nuclear Physics, Uzbekistan Academy of Sciences, Tashkent, 100214 Ulugbek, Uzbekistan — To any type of charge corresponds a kind of inertial mass. Such a mass-charge duality explains the availability in the neutrino of the naturally united rest mass and charge equal to all its mass and charge consisting of the electric, weak, strong and a range of other the innate components. From their point of view, we discuss a new theory of a grand unification. In this theory, the gravitational field is a naturally united field of the unified system of the most diverse combinations of the electric photons, magnetic monophotons, weak bosons and the strong gluons where the four pairs of forces of a different nature are united. Some consequences and laboratory confirmations of the discussed theory have been listed, in which graviton is predicted as a grand united gauge boson. Therefore, the gravitons constitute a natural light testifying in favor of gravitational force. They show that to each type of light corresponds a kind of force. Thereby, the suggested field theory that unites all gauge bosons in gravitons gives the possibility to directly look on the nature of gravitational matter elucidating the interratio of intragraviton forces and the problem of elementary particle fundamental symmetries.

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