

How the observed receding motion of the nearby universe is caused by negative charges retained by galaxy clusters Antonio Codino





A new idea explaining the expansion of the universe is presented and debated. The receding motion of nearby universe within 10²⁶ meters has never been explained with well assessed Physics Laws. According to a recent, complete study anchored to many empirical data, any spiral galaxies retain permanent electrostatic fields due to the motion of cosmic rays. Spiral galaxies and other galaxy types as well, experience multiple and variegated interactions in galaxy clusters as attested by Xray, radio and optical data, thereby loosing the halo of positively charged cosmic nuclei, leaving negative charges of some 1033-1034 Coulomb in cluster cores. Negative charges are also suggested by upper limits of diffuse gamma-ray fluxes in galaxy clusters. Along this line of arguments velocities of galaxy clusters from the Earth caused by electrostatic fields generated by cosmic rays are calculated. The chief result, obtained in several pertinent conditions related to the expansion of the nearby universe, is that cluster velocities increase as cluster distances from the Earth augment.