

Abstract Submitted
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Dark matter as the source of all forces in nature HECTOR MUNERA, Centro Internacional de Fisica — It is postulated that Universe at every scale from quarks up to observable cosmos is entirely constituted of dark matter DM, whose elementary particle called sagion is the simplest object in Nature. Sagions are indestructible discrete, occupy finite 3D-volume, energy-like with linear momentum P , and CW or CCW spin S . Sagions may be in free or condensed states, always obeying three conservation laws: total energy, and linear and angular momenta. Visible common matter is formed of condensed sagions. Free sagions behave on the average as a fluid filling 3D-space, identified here with De Broglies fluid described by a homogeneous Klein-Gordon equation, which interacts with matter according to De Broglies double solution. As in atmospheric pressure that generates forces pushing sail boats or holding together Magdeburg hemispheres, gradients in DM-pressure lead to apparently different forces: gravity, electromagnetic, nuclear, chemical, van der Waals, etc., thus fulfilling Einsteins dream for a unified fluid and field theory. Force densities associated with our novel solutions to the Lorentz invariant classical wave equation are reported here for the first time.

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