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## Quarkyonic Mean Field Theory: Quark-Nucleon duality and Ghosts

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We discuss mean field theory of Quarkyonic matter at zero temperature. This field theoretical description of quarkyonic matter consists of quark, nucleon and ghost fields. The ghosts are present to cancel overcounting of nucleon states that are Pauli blocked by the quark Fermi sea. We treat the nucleons with contact interactions in mean field approximation and the quarks without mean field vector interactions, but allow mass terms to be generated consistent with the additive quark model for quark masses.

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