

Abstract Submitted  
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**Strictly correlated electrons in density-functional theory: A general formulation with applications to spherical densities** MICHAEL SEIDL, Institute of Theoretical Physics, University of Regensburg, D-93040 Regensburg, Germany, PAOLA GORI-GIORGI, ANDREAS SAVIN, Laboratoire de Chimie Theorique, CNRS, Universite Pierre et Marie Curie, 4 Place Jussieu, F-75252 Paris, France — We reformulate the strong-interaction limit of electronic density functional theory in terms of a classical problem with a degenerate minimum. This allows us to clarify many aspects of this limit, and to write a general solution, which is explicitly calculated for spherical densities. We then compare our results with previous approximate solutions and discuss the implications for density functional theory.

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