

Goal oriented error estimators for Hartree Fock and Kohn Sham equations (DFT)

Reinhold Schneider¹ S. Schwinger

Hartree Fock and DFT (density functional theory) is designed for computing the ground energy of a nonrelativistic N electron system, with various application in chemistry, solid physics and materialscience. Within the framework of weighted dual residual methods we present a posteriori error estimators measuring the error in the desired energy computation.

¹TU Berlin, 10623 Berlin, Germany, schneidr@math.TU-Berlin.DE