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Abstract for an Invited Paper
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Strong Correlation in Density-Functional Theory

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What do fractional occupancies mean in Kohn-Sham Density-Functional Theory (KS-DFT)? Can we model configuration mixing in KS-DFT? Can molecular bonds be dissociated using spin-restricted KS orbitals? These questions will be addressed in the context of recent work on a strongly-correlated, exact-exchange based (or Hartree-Fock based) correlation functional of the author.