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Coulombic few-body systems in the adiabatic hyperspherical representation[1] KEVIN DAILY, Purdue Univ, JAVIER VON STECHER, Seagate Technology, CHRIS GREENE, Purdue Univ — We study few-body systems consisting of charged particles in free space using the adiabatic hyperspherical representation. We use a correlated Gaussian basis at a fixed hyperradius with efficiently calculated matrix elements [1] to generate the adiabatic potentials and non-adiabatic couplings as a function of the hyperradius. [1] K. M. Daily and Chris H. Greene, Phys. Rev. A 89, 012503 (2014).

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