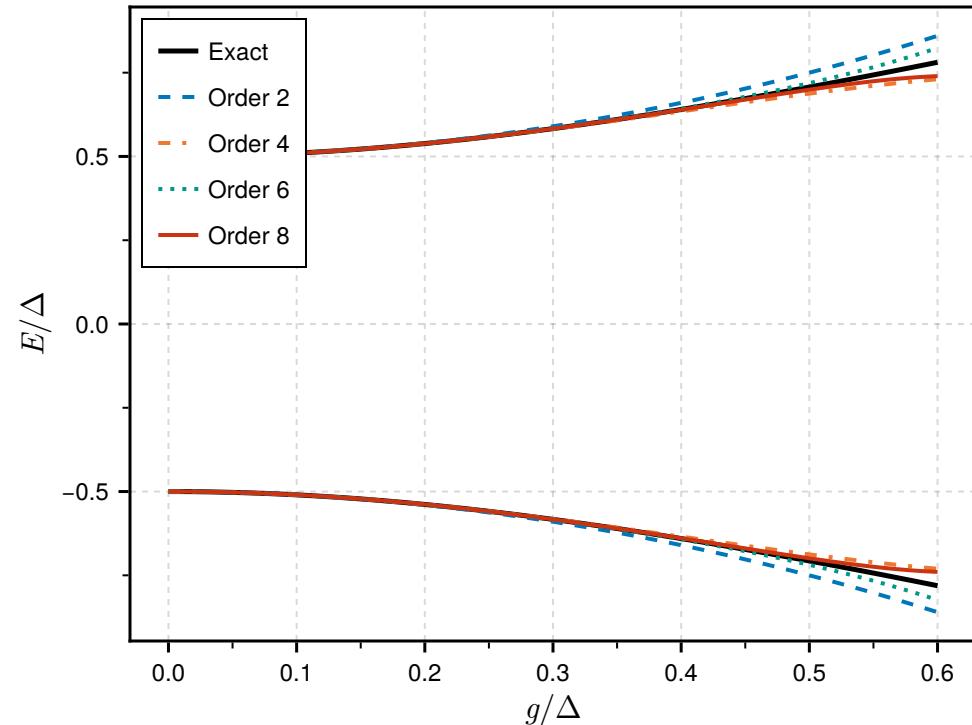
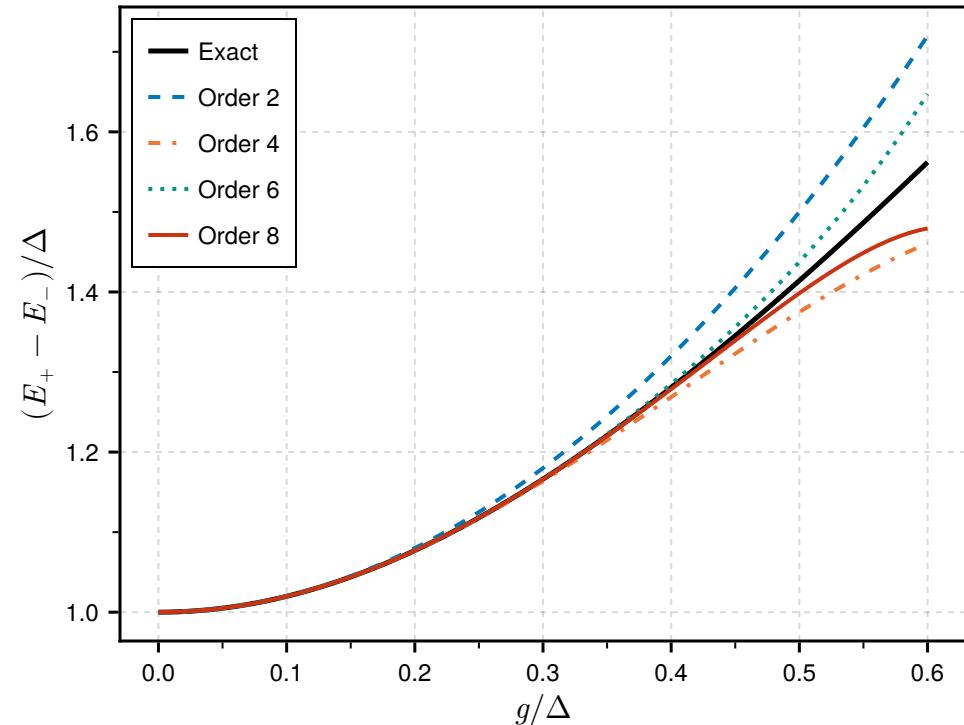


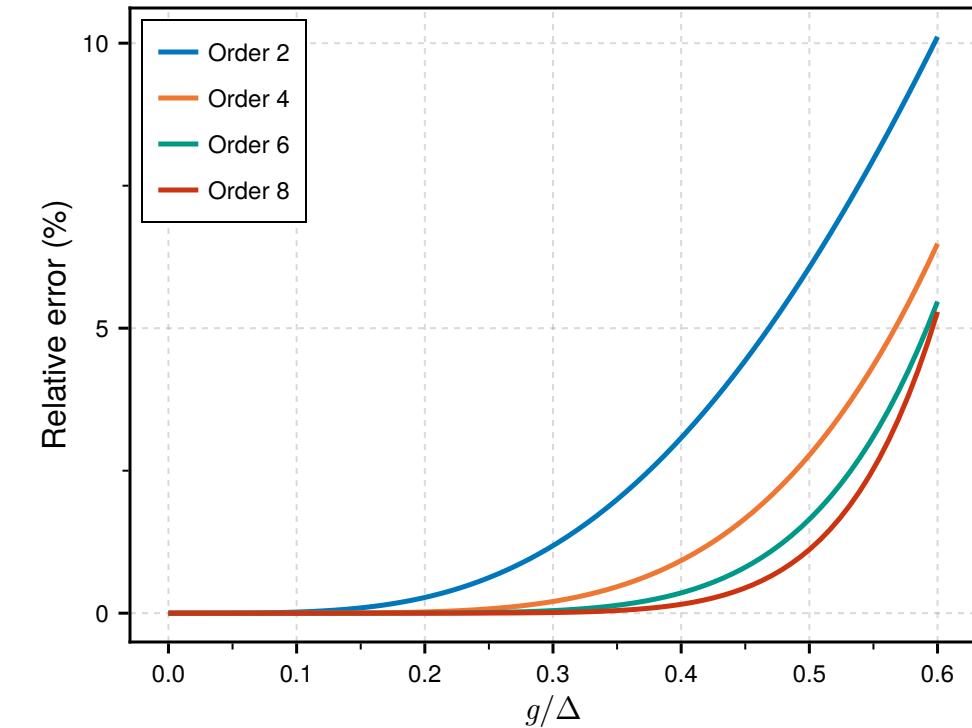
**(a) Two-level system energy levels**



**(b) Energy gap**



**(c) Approximation error in ground state**



**(d) Jaynes-Cummings: dispersive shift and Kerr**

