**Code**

**Code set up**

The code for 1 D atom arrays I have structured the code in the following way:

The Class ‘RydbergHamiltonian1D’ computes the 2\*\*n Hamiltonian matrix for the following Hamiltonian:

The Class Adiabatic Evolution evolves the Hamiltonian. This done via Trotterization for a selected time interval dt of a desired time

The Hamiltonian can be evolved under different detuning schedules. So far, the two options are:

* **Linear detuning:** pick a start and a stop detuning value and evolve through these values in t/dt integer steps
* **Zero detuning**