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bound.f calculates bound states in a Woods-saxon potential,
with or without a spin-orbit force. Input is as below and
is prompted for. Else the input can be put in a file and
used with the standard unix redirect bound < filename

Output files are:
  bound.xxx tabular list of r u(r) pairs for graphical use
  bd.xxx    npoints  step_length
            u(r)/r
            ...
            list for use by other codes later on


%-------------------------------------------------------------
trailer xxx for output files: bound.xxx and bd.xxx
input ia:
   =0 search potential depth for given separation energy
   =1 search separation energy for given potential
specification of potential radius and diffuseness
   =1 woods-saxon radius and diffuseness
   =2 Hartree-fock rms radius and diffuseness
      with fitting of well to input value
woods-saxon radius and diffuseness parameters
potential depth or separation energy (ia)
core and valence masses
core and valence charges
valence particle spin
l-value, j-value
number of nodes
spin-orbit potential strength (typically 6 MeV for nucleon)
%-------------------------------------------------------------
```