

Heavy Metal Group

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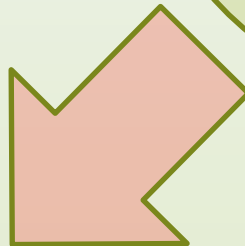
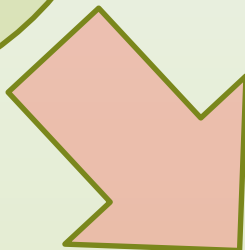
**Radiative
Atomic Data**
Wavelengths
A-values
f-values
.....

**Collisional
Atomic Data**
Excitation
Ionization
Recombination
.....

Modelling
CLOUDY
CHIANTI
ADAS
ColRadPy
ARTIS/TARDIS
CMFGEN
.....

GRASP⁰
AutoStructure
CIV3
GRASP2K
Cowan
HULLAC
FAC
.....

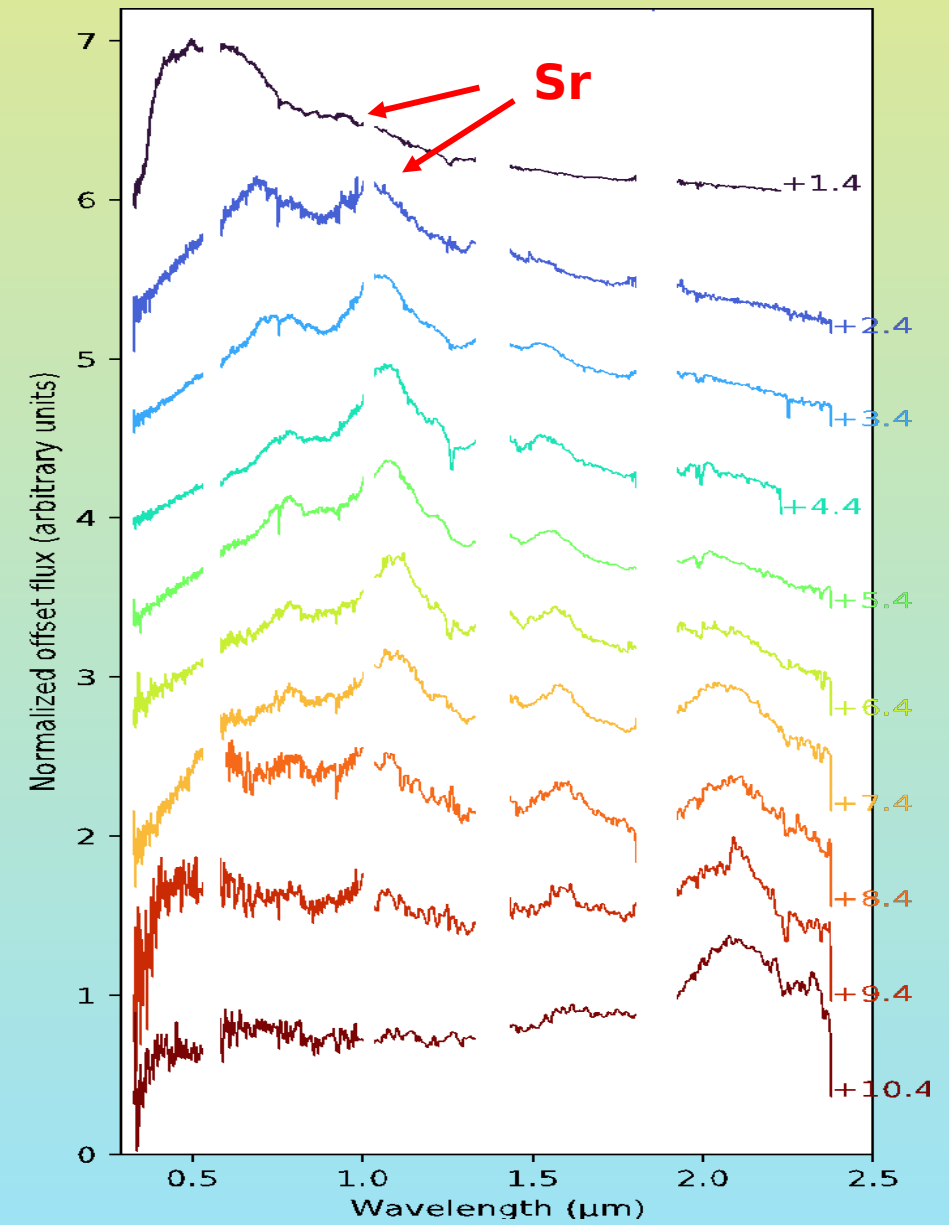
R-Matrix
Breit-Pauli
DARC
Distorted Wave
.....



Atomic structure + electron collisions + radiative transfer = modelling of ejecta from neutron star mergers.

The simulation work will employ large scale computing resources involving 10 K processors at supercomputer centres both in Europe and the US.

Perlmutter, is the DoE flagship CPU+GPU supercomputer at Berkley, Ca. , USA.



GW170817 kilonova observed spectra