

## Ast 25 week 3b: Useful readings/ Homework #04

See the reading room for articles on, or links to:

Dynamic solar system models

Cruithne, a quasi-satellite of the Earth

Dense solar system model papers: Masett & Snellgrove (1999), Hansen (2009)

Origin of neutrino mass.

### Good Wikipedia starting points

<https://en.wikipedia.org/wiki/Exoplanet>

[http://en.wikipedia.org/wiki/Homestake\\_experiment](http://en.wikipedia.org/wiki/Homestake_experiment)

<http://en.wikipedia.org/wiki/Super-Kamiokande>

[https://en.wikipedia.org/wiki/Degenerate\\_matter](https://en.wikipedia.org/wiki/Degenerate_matter)

[https://en.wikipedia.org/wiki/Pauli\\_exclusion\\_principle](https://en.wikipedia.org/wiki/Pauli_exclusion_principle)

[https://en.wikipedia.org/wiki/Chandrasekhar\\_limit](https://en.wikipedia.org/wiki/Chandrasekhar_limit)

[http://en.wikipedia.org/wiki/Type\\_Ia\\_supernova](http://en.wikipedia.org/wiki/Type_Ia_supernova)

<https://en.wikipedia.org/wiki/Kilonova>

[https://en.wikipedia.org/wiki/Superluminous\\_supernova](https://en.wikipedia.org/wiki/Superluminous_supernova)

<http://en.wikipedia.org/wiki/Pulsar>

[http://en.wikipedia.org/wiki/Quark\\_star](http://en.wikipedia.org/wiki/Quark_star)

### Homework #04 (5 pts):

Write a short essay (300-400 words) describing the key issues involved in the post main-sequence life histories of massive stars. Incorporate, where appropriate, definitions/explanations of *all the key words below*. Provide at least two references you used in your work.

Nuclear fusion

White dwarf

Black dwarf

Electron degeneracy pressure

Chandrasekhar limit

Supernova

Neutrino

Neutron degeneracy pressure

Neutron star

Pulsar

Quark star

Black hole