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## **Phys 453 project**

### Isospin

Because of the similarities in masses between the proton and neutron. Physicists started to think of them as different states of the same physical system, similar to a spin system. From here came the word, isospin , meaning isotopic spin. You shall apply what you have learnt in spin to the theory of proton and neutron. You can summarise the references given in your own words after you study them, you should include

1. Revision of the spin in quantum mechanics.
2. Definition of isospin
3. Nuclear theory from isospin
4. Applications to standard model

You should include the references in your project

- Beaz J. , Hypercharge and Weak Isospin (2003)

Best Regards,

**Dr Salwa Alsaleh**