

Fine-Structure Constant and Matter Evolution

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Abstract: Discussing for the origin of fine-structure of the Universe's space and the Matter

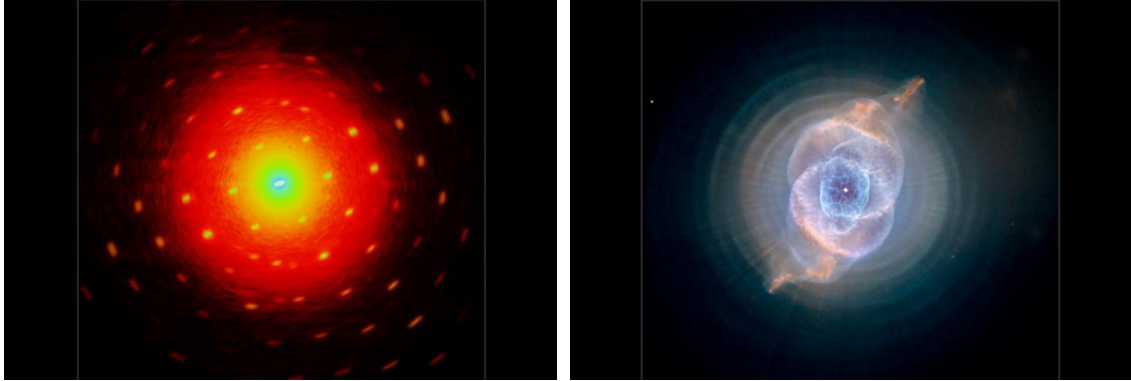


Image 1. Hydrogen atom's structure

Image 2. Cat's eye nebula

The Universe originated in a neutron star (high-heat high-density matter body); galaxies also originated in neutron stars; and are all the results of the attenuation and decay of these neutron stars even all matter in the Universe. ^{[1][2]}

The fine-structure is the result and *annual growth ring* of the growth and evolution of the Universe's space (cosmic ontology—cosmic background matter), galaxies and the matter. ^[3]

The nascent and early Universe's space (cosmic ontology—cosmic background matter), galaxies and the matter without fine-structure even hyper-fine structure.

The Universe's different spatial regions have different ages and their matter in every where is during different growth and evolution progress, stage and degree; different galaxies have different ages and also their matter have different degrees of growth and evolution.

The 13.7 billion years is the age of the *Solar System* or perhaps of the *Milky Way*; is the essence and origin of the fine-structure constant of the matter belongs to the *Solar System* or even of the *Milky Way*; and is also the *annual growth ring* of the matter belongs to the *Solar System* or even of the *Milky Way*.

References

- [1] *Origin of the Universe* <http://vixra.org/abs/1609.0392>
- [2] *The structure and composition of cosmic background* <http://vixra.org/abs/1610.0094>
- [3] *Fine-structure constant* https://en.wikipedia.org/wiki/Fine-structure_constant
- [4] *Image 1. Sub-phonon-period compression of electron pulses for atomic diffraction*
<http://www.nature.com/ncomms/2015/151027/ncomms9723/full/ncomms9723.html>
- [5] *Image 2. Cat's eye nebula (NGC 6543)* <http://apod.nasa.gov/apod/ap040910.html>