

Abstract Submitted  
for the APR18 Meeting of  
The American Physical Society

**The complex structure of quark and a new paradigm of physics**

RONGWU LIU, No Company Provided — Quark (as well as electron etc) is known as fundamental particle which is usually abstracted as point-like particle carrying fundamental matter mass, electricity, flavor, and color. This author proposes that, fundamental matter flavor and color don't exist in the form of particle, instead, they exist in the form of volume field; fundamental body (such as quark etc) is composed of fundamental particle (mass and electricity) and fundamental volume field (flavor and color) which exists in the form of limited volume. Such that, a new paradigm of strong interaction and weak interaction is proposed: (1) Volume field is the form of material existence in plane space. (2) Volume field takes volume motion. (3) Volume fields have strong or weak interaction between them by means of overlapping volume fields. As displacement motion of particle in point space has the properties of relativity and inertia, volume motion of volume field in plane space has the properties of absoluteness and restoration; as exchanging force of particle has the properties of long-range force, superposition force, central force, and attenuating force, overlapping force of volume field has the properties of short-range force, saturation force, non-central force, and non-attenuating force.

Rongwu Liu  
No Company Provided

Date submitted: 19 Jan 2018

Electronic form version 1.4