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■ Researcher information

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Major

Particle Physics, High Energy Physics (Theory)

■ Research topics

Quest for microscopic particles and macroscopic universe

Keywords

Duality between gauge theories and string/membrane theories, baryon number of the universe, matter and anti-matter, dark matter

Contents

■ Overview (background, goal, detail)

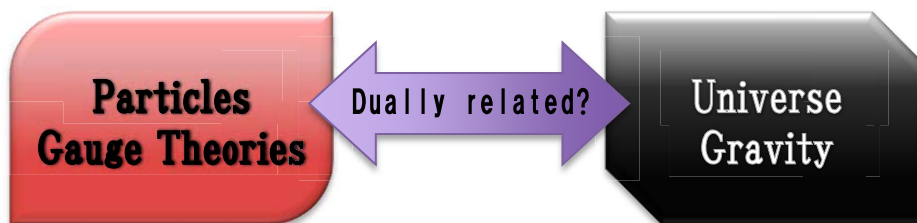
The microscopic world of particles and the macroscopic world of the universe are inter-related. We want to understand this linkage between particles and the universe by constructing various theories. For this we have to create new theories among which I like the non-standard theories.

■ Case study

Study of dual theories of gauge theories, theory of membrane, quantum anomaly of string theories, B mesons' decay, baryogenesis, study of hadrons by duality, neutrino mass by monopolium, number theory and decay of particle, *etc.*

■ Potential (applications, future goals)

We want to examine in the wider region of sciences the duality between gauge theory and gravity.



Intellectual properties (Patents, computer programs), productization, publications and social/industrial contributions

none

Potential of social/industrial contribution

■ Joint research

Joint research is possible in academic world.

PHYSICS

Particle