

## Renormalizable Quantum Gauge Theory of Gravity

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Abstract: The quantum gravity is formulated based on the principle of local gauge invariance. The model discussed in this paper has local gravitational gauge symmetry, and gravitational field is represented by gauge field. In the leading-order approximation, it gives out classical Newton's theory of gravity. In the first-order approximation and for vacuum, it gives out Einstein's general theory of relativity. This quantum gauge theory of gravity is a renormalizable quantum theory.

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Key words: quantum gravity, gauge field, renormalization

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