GENERAL RELATIVITY

A Quick Guide

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1 Overview and Review

What is general relativity? It's a theory of gravity.

Replaces Newton's law of gravity, for heavy masses and high precision.

Keep in mind, GR is not compatible with Quantum Mechanics.

Question in Physics: how to reconcile GR and QM?

1.1 Review of Special Relativity

1.2 The Equivalence Principle

1.3 Versions of the Equivalence Principle

1.3.1 The Strong Equivalence Principle

1.3.2 The Weak Equivalence Principle

2 Review of Multivariable and Vector Calculus

3 Flat 3-D space

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