

# New The Formula For Law Of Gravity

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**Abstract:** Newton's second law and Newton's third law has proven to be wrong, then including the law of gravity into account, but also need make the appropriate modification. Following will be given the new formula the law of gravity, corresponding to the new calculations, a lot of specific data astronomical observations, may be subject to change. Such as mass of celestial bodies, and the size of gravity between celestial bodies, are likely to change. So far variety of astronomical data, should all be re-calculated.

**Key Words:** Newtonian mechanics; Newton's second law; Newton's third law; New the second law of motion; New the third law of motion; Gravity

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According to the new second law of motion and the new third law of motion<sup>[1,2]</sup>, proposed the new formula for the law of gravity.

New the formula for the second law of motion it is:

$$F = \lim_{\Delta l \rightarrow \infty} m \cdot \frac{\Delta l}{\Delta^2 t^2} = m \cdot \frac{ql}{q^2 t^2} = ma^+ \quad (1.01)$$

New the formula for the third law of motion it is:

$$F_1 = ma^+ \Leftrightarrow F_2 = \beta m \cdot \beta^{-2} a^+ \quad (1.02)$$

So the law of gravity new the formula is as follows:

$$F_1 = G \cdot \frac{(m_1 + m_2)}{r^2} \cdot \frac{a_1^+}{a_1^+ + \beta^{-2} a_1^+} \cdot m_1 \quad (2.01)$$

$$F_2 = G \cdot \frac{(m_1 + m_2)}{r^2} \cdot \frac{\beta^{-2} a_1^+}{a_1^+ + \beta^{-2} a_1^+} \cdot m_2 \quad (2.02)$$

Thereinto

$$G \cdot \frac{(m_1 + m_2)}{r^2} = a_1^+ + \beta^{-2} a_1^+ \quad (2.03)$$

and

$$\beta = \frac{m_2}{m_1} \quad (2.04)$$

From (2.01)~(2.03) to get:

$$F_1 = m_1 a_1^+ \quad (2.05)$$

$$F_2 = m_2 \beta^{-2} a_1^+ \quad (2.06)$$

## Physics Disquisition

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Visible the force in between two celestial bodies, each other is asymmetrical. Big celestial body by do the force is in small, small celestial body by do the force is in big, Such situation is conducive to the stability of galaxies in the universe run. Be the stability principle for celestial bodies in the universe run. Adopt a new formula to calculations, some of the problems in the past astronomical calculations, there may be get new conclusions. Therefore it is of great significance.

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## 万有引力定律的新公式

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**摘要:** 牛顿第二定律和牛顿第三定律已经被证明是错的, 那么包括万有引力定律在内, 也要进行相应的修改. 以下将给出万有引力定律的新公式, 对应于新的计算, 天文观测的很多特定的数据, 都可能要有所改变. 例如天体的质量, 和天体之间引力的大小, 都可能有所改变. 因此迄今的各种天文学数据, 都要从新进行计算.