

The Principle of Gravitational Collapse

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Abstract: It is outlined a basic principle to stellar evolution/planet formation regarding gravitational collapse.

The principle of gravitational collapse is stated,

"A star cannot gravitationally collapse unless it loses mass".

The mass loss and gravitational collapse principles go hand in hand, as the star loses mass it gravitationally collapses. Depending on how fast the mass is lost will determine how fast it gravitationally collapses. It also means that gravitational collapse without mass loss, as well as any explanation of the formation of any celestial object due to gravitational collapse absent significant mass loss is probably misguided. This is in line with stellar metamorphosis theory, as to form any object with gravitation, the object had to be vastly larger than its end product.