The Variable Rate of Mass Loss Principle of Stellar Metamorphosis

Jeffrey J. Wolynski
Cocoa, FL 32922

Abstract: A new principle of stellar metamorphosis is introduced to clarify the star sciences even more. Stars lose mass at variable rates throughout their metamorphosis.

The Variable Mass Loss Principle stems directly from the mass loss principle of stellar metamorphosis, which states:

"*As stars evolve, cool and die, they lose mass.*" http://vixra.org/pdf/1601.0143v1.pdf

The variable mass loss principle states:

"*The rate of mass loss of a star during its metamorphosis varies.*"

What this means is that stars like the Sun can lose mass at faster or slower rates that what is currently observed. So taking its mass loss rate now, as any indication of future or past mass loss rate is misguided. A good analogy for this would be a business making money. Just because a business was in the red when it first begins, and loses lots of cash flow, does not mean it will not be extremely profitable in the future. As well, just because a business has lots of success now, does not mean it will not bite the dust later. Basically the past is no indication of the future with regards to the rate of mass loss. Another way of saying it is that mass loss is not linear in stars that appear to have stability and a constant rate of mass loss. Variability is the rule of thumb with all stellar mass loss, to the point of always obeying the Cassandra ratio, given they are between the Sun's mass and radius and stars that have half the diameter and mass.

Cassandra ratio here: http://vixra.org/pdf/1806.0018v1.pdf