

Ultraviolet Habitable Zones Around Three Hundred F, G, K and M Dwarf stars.

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Ultraviolet radiation is known to inhibit photosynthesis, induce DNA destruction and cause damage to a wide variety of proteins and lipids. In particular, UV radiation between 200 and 300 nm becomes energetically very damaging to most of the terrestrial biological systems. On the other hand, UV radiation is usually considered one of the most important energy source on the primitive Earth for the synthesis of many biochemical compounds and, therefore, essential for several biogenesis processes.

In this work we apply our model of UV Habitable Zones (Buccino et al., *Icarus*, 183 (2006) 491-503) to study the ultraviolet behavior in a set of near 300 F to M dwarfs stars observed by the International Ultraviolet Explorer. Using the vast statistics of approximately 2000 observations, we analyze the influence of long and short scale stellar activity as constraints for the origin and the development of life within the liquid water habitable zones around those stars.

