

Solar and Stellar Space Weather and Space Climate: Relevant Issues in the Birth and Evolution of Life?

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It is customary in Bioastronomy to define the Habitability Zone (HZ) and Continuous Habitability Zone (CHZ) as a set of planetary orbits located around a star, where the planetary average temperature is such that water can exist in liquid state (HZ), which is relevant to the birth of life (Life-Genicity) and, respectively, that such a condition is preserved in time, which is relevant to having conditions for life to evolve (Life-Sustainability). In this framework, we elaborate on the possible role played by Space Weather in solar and stellar environments with respect to Life-Genicity and on solar and stellar Space Climate with respect to Life-Sustainability, emphasizing the need to extend the concepts of HZ and CHZ by incorporating such environmental requirements to properly identify the target stars in searching for life in the Universe.