

## Habitability in Binary Systems

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### Abstract

Progress towards understanding factors that contribute to habitability on planets in binary systems is summarized. In wide binaries, habitable zones (HZ) may contain so called S-type planets, a planet orbiting one of the stellar components. For most stable planetary orbits the HZ is dominated by the star being orbited, especially if it is the more luminous star. In circumbinary, P-type planets, UV may be reduced and planetary magnetic protection may be significantly enhanced, for orbital periods greater than 20 days, due to the rapid synchronization of the stellar rotation with the binary orbit. We suggest that estimates of the number of planets capable of sustaining complex life should include a significant number of potentially habitable circumbinary planets.

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