

Free-floating planets in the Milky Way outnumber stars by factors of thousands

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A few hundred thousand billion free-floating life-bearing Earth-sized planets may exist in the space between stars in the Milky Way. So argues an international team of scientists led by Professor Chandra Wickramasinghe, Director of the Buckingham Centre for Astrobiology at the University of Buckingham, UK. Their findings are published online in the Springer journal *Astrophysics and Space Science*.

The scientists have proposed that these life-bearing planets originated in the <u>early Universe</u> within a few million years of the Big Bang, and that they make up most of the so-called "missing mass" of galaxies. The scientists calculate that such a <u>planetary body</u> would cross the <u>inner solar</u> <u>system</u> every 25 million years on the average and during each transit, zodiacal dust, including a component of the solar system's living cells, becomes implanted at its surface. The free-floating planets would then have the added property of mixing the products of local <u>biological</u> <u>evolution</u> on a galaxy-wide scale.

Since 1995, when the first extrasolar planet was reported, interest in searching for planets has reached a feverish pitch. The 750 or so detections of exoplanets are all of planets orbiting stars, and very few, if any, have been deemed potential candidates for life. The possibility of a much larger number of planets was first suggested in earlier studies where the effects of gravitational lensing of <u>distant quasars</u> by intervening planet-sized bodies were measured. Recently several groups of investigators have suggested that a few billion such objects could exist in the galaxy. Wickramasinghe and team have increased this grand total



of planets to a few hundred thousand billion (a few thousand for every Milky Way star) - each one harbouring the legacy of cosmic primordial life.

More information: Wickramasinghe NC et al (2012). Life-bearing primordial planets in the solar vicinity. *Astrophysics and Space Science*; DOI 10.1007/s10509-012-1092-8

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