

Pangalactic intelligence: Here's a guess about how many aliens in the universe

[I]n excess of four billion years ago, practically as soon as our planet had sufficiently cooled from its fiery formation, [life emerged on Earth]. And if, just as on our world, life on other planets emerged quickly and evolved to become ever more complex over time, perhaps intelligence and technology, too, could be common throughout the universe.

In recent years, however, some skeptical astronomers have tried to put more empirical heft behind such pronouncements using a sophisticated form of analysis called Bayesian statistics. They have focused on two great unknowns: the odds of life arising on Earth-like planets from abiotic conditions—a process called abiogenesis—and, from there, the odds of intelligence emerging.

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[Astronomer David Kipping found] that the “life is common, and intelligence is rare” scenario is nine times more likely than both life and intelligence being rare. And even if intelligence is not rare, the life-is-common scenario has a minimum odds ratio of 9 to 1. Those odds are not the kind that one would bet the house on, Kipping says. “You could easily lose the bet.”

Still, that calculation is “a positive sign that life should be out there,” he says. “It is, at least, a suggestive hint that life is not a difficult process.”

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