

[OT] Stars versus sand grains

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During one morning of a brief holiday last week I walked a few miles along a Dutch beach of fine sand. Not for the first time I was musing about the familiar comparison that there are more stars in the universe than the number of grains of sand on the Earth. I reckon a handful of sand must contain several million grains (10^6 grains of say 1 mm diameter even in a 1 cm cube). So, even confining my gaze to that short stretch of beach, the numbers quickly become very hard to handle. Extrapolating to all beaches and deserts across the planet, they become effectively incomprehensible to me.

But my curiosity is aroused now. Some googling turned up several estimates of the star number, ranging from roughly 10^{19} to 10^{24} . Anyone here know of a latest 'best estimate' please? And an estimate for the sand number?

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