

Meeting a few people down the pub, I was asked by one man a simple question; where do you live? I took a quick sip of my chosen beer, swallowed quite exaggeratedly and looked that man dead in the eye. He flinched defensively, as if I were to uncoil and attack him like some starving tiger. Instead, I replied to him;

'I live on a free-rolling, out of control, spherical clump of mass, travelling endlessly, relentlessly, unavoidably around bigger masses on a giant tablecloth.'

I returned to my drink as the man's face slumped in a pile of confusion, hostility and apprehension. A common response, as I have tested. But if we are to believe in Einstein and modern cosmology, this is exactly the correct answer to the question of our habitation.

Besides, we're all too eager to take E to be equal to M times C squared – even if we don't all quite understand why. Mariah Carey trusted it so much that she made an album all about it! At least, that's the kind of reasoning that led to it becoming contained within my CD rack. Is it because this familiar equation is the most important or the most influential, that we, as a general population, forget some of the other remarkable work this man has done?

Take it back to the tablecloth. It is hard to imagine that our planet, the quaint Earth, could be contained in Space by something as simple to imagine as that sheet you annoyingly have to place over the table each time your Gran comes round. But this is what Einstein theorised, throwing spanners galore into the works of Sir Isaac Newton. England's reaction was absolute; they thought he was a raving German nutcase. All, that is, except Arthur Eddington.

I would not be the slightest bit surprised to hear that he is largely unknown. But the truth of the matter is, he collaborated with Einstein and so, in turn, also knew that we're living on a tablecloth. This observation was to be named 'General Relativity'. And this is how it works.

Imagine first laying the tablecloth. Feel free to do it for real should you deem your environment suitable enough. If you were to pick it up and pull each side, you'll find that it tenses up and becomes flat. But now, grab a melon, basketball, or indeed any quite heavy spherical object you happen to have nearby, and place it upon the tablecloth. Notice how the tablecloth is not flat anymore. What you have now is a 'pit' around this object, it is clear that the very *presence* of the object has caused the tablecloth to bend. If you've got something small enough, and again spherical, try to roll it in a straight line along the edge of the created 'pit'. You'll probably find it tends to curve and drop towards the object.

This is what happens in Space. Instead of a tablecloth, you have the mysterious fabric of Space-Time, and instead of random heavy spheres, you have stars and planets and instead of smaller objects, you have less massive objects trying to get everywhere in straight lines.

I urge you to meet that same man in the pub or somewhere similar, and convince him when I could not; that we all live, not in a yellow submarine, but upon a huge tablecloth.

(562 words)