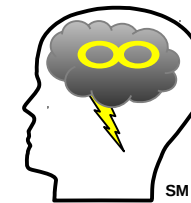


Space is an Object in Nature

A Communication of the Intractable Studies Institute

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Supporting Evidence for Space as a Natural Object.

Definition: Space = The 3-Dimensional volume with time progression that is a property of, and even the definition of, our natural universe.

Definition: natural object = something that exists in reality, not an abstraction.

1. In the Big-Bang Theory, space initially was very tiny, then expanded. If it is not a thing, how can it expand? Only a "thing" can expand.

2. Albert Einstein said space can warp as the gravitational field of bodies with mass. If space can warp as gravity, then it must be a thing to have that property. If space was no-thing it can't have properties because properties belong only to things or processes.

3. Gravitational Waves are ripples in space. If space can support a ripple as a gravitational wave, then it must be a thing to have that property. If space was not a thing, it can't have properties because properties belong only to things or processes. It is illogical to say both that space is not a thing, but that space has properties.

4. The String Theory, even though it is theoretical and unproven, models strings as vibrating 1-dimensional objects. If it's a vibrating dimension, it must be a thing. Physicists have difficulty accepting a 3-D volume object can exist when the evidence is all around us, but string theorists accept vibrating 1-D strings exists when there is little evidence of them. The stronger case of existence is for 3-D space object.

5. The Cosmic Microwave Background Radiation data shows a red-shift in one direction and a blue-shift in another direction. This is evidence of a standard cosmic rest frame, even if locally moving as per expansion or contraction. Such a rest frame is also naturally the cosmic natural dimension rest frame. See the Communication "An Experiment in Relativity: Time Dilation and Space" to find the cosmic rest frame at your locale.

6. Fields – If space itself is the fields of gravity, electromagnetic, and charge, then it's a thing to have these properties. But even if space is space and fields are independent in the space, then space contains the fields and thus space is the container. A container is a thing that exists, not a no-thing.

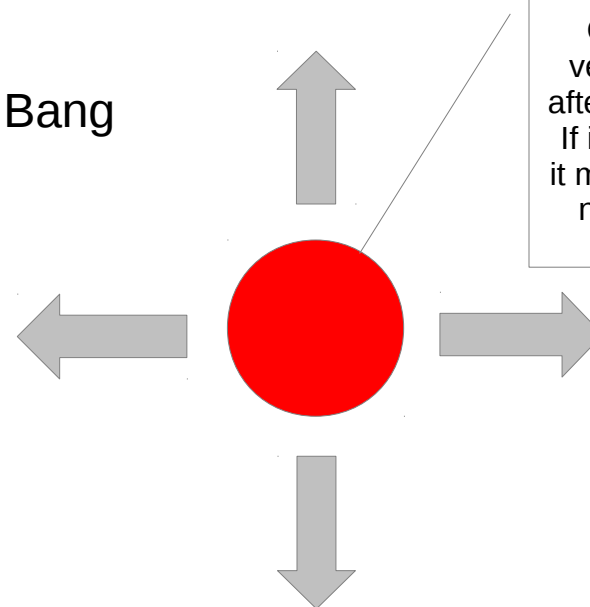
The kind of thing that space is:

1. Property of volumetric extension.
2. Property of temporal progression.
3. Property of container of particles.
4. Property of container of fields.
5. Property of gravitational wave propagation.
6. Property of warp as gravity around mass.
7. Property of supporting matter-antimatter creation and annihilation.

What space isn't:

1. Space cannot be nothing.
2. Space obviously cannot be a particle.

Big Bang



Our Universe very, very early after the Big Bang. If it is expanding, it must be a thing, not a no-thing.