

## Four States of Space Theory

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This research abstract updates previous papers which introduced the Four States of Space Theory (FSST). The FSST has been presented in the past because it is a more parsimonious model for presenting some key components of the physical universe. By getting back to basics and rebooting it provides a new framework for dealing with certain concepts that appear at odds in relativity theory and quantum mechanics. The below table (Four States of Space Theory) presents the four states of space as a more clear-cut model. Four separate but interrelated concepts are framed within a spatial dimension where space is viewed from four vantage points: Moving, Stationary, Filled (Mass), and Empty. Each will be explained more fully below.

In the Classical Paradigm, space and time were viewed as independent of each other and absolute entities. Everything that occurred within a static ether of sorts. The theory of relativity changed all that in showing how spacetime was more accurate and special relativity moved our understanding of filled space and united it with empty space via gravity. Along with the theory came the introduction of black holes in which gravity became predominant and filled space collapsed upon itself. Everything was fine in the larger context of our universe but when we extended this thinking to the quantum level, spacetime began to break down.

<b>Four States of Space Theory</b>	<b>In Motion</b>	<b>Stationary</b>
<b>Filled Space</b>	<b>Gravity</b>	<b>Black Hole</b>
<b>Empty Space</b>	<b>Time</b>	<b>Singularity</b>

Enter the four states of space theory to provide a more succinct explanation of previous phenomenon and a potential link to the quantum level, at least at the philosophical level. Filled space is basically mass, the planets, stars, you and me, etc.... When filled space moves within empty space gravity is the result. Mass is created by gravitational attraction and when it moves it distorts empty space and empty space determines how filled space will move.

Empty space in motion equals time. Time does not exist but is rather the expansion of empty space via the big bang. The universe is not static as was initially proposed in the classical model and in relativity theory. The universe is expanding and is expanding at an accelerating rate.

Time is a creation of convenience and works very well in describing the past, present, and the future, but it isn't real. What is real is the expansion of empty space which the universe has been doing since its very beginning.

At the opposite end of the continuum is when filled space becomes stationary where gravity becomes predominant the mass collapses upon itself which happens with particularly massive stars. These stars become black holes where everything is attracted to this massive gravity entity. The filled space is stationary but there is still movement because empty space is still moving and expanding.

It is the next level where empty space becomes stationary within a singularity. This is where filled space and empty space become indistinguishable one from the other. This is when the quantum level comes into play where space that has been measured horizontally suddenly switches its orientation and becomes perpendicular to the horizontal and is vertical. It introduces a multi-dimensional approach in which what appears as a singularity from a horizontal orientation becomes a new dimension on a different plane by switching its orientation. This can occur in an infinite number of random perspectives, introducing uncertainty related to position and momentum.