

FILM REVIEW

Cosmic Origins: The Scientific Evidence for Creation. A Film by Robert J. Spitzer. San Francisco: Ignatius, 2012. 49 min. \$19.95. ISBN 978-1-5861-7771-3.

Produced by Fr. Robert J. Spitzer, SJ, author of *New Proofs for the Existence of God*, this video, *Cosmic Origins*, is composed of a series of interviews with experts in the cosmology/astrophysics field, several of whom have received the Templeton Prize for their studies in religion and science.

To enhance “relatability” of the audience with the experts, there are occasional questions posed by college students, with the narrative leading through consecutive responses based upon these questions. The tone is friendly and relaxed, and the experts are not trying to be authoritative but are striving to explain their points to a non-technical audience. While the early larger section of the film deals with the physics of the early universe, the latter part brings out the importance of metaphysics, necessary to assemble a complete story that “hangs together.”

The narrator, Angela B. Grace, links the students to the experts. Early on we are introduced to Physics Professor Stephen M. Barr, who defines what “cosmology” is and describes some of the early observational data from astronomy that allows us to propose cosmological hypotheses and test their consistency against data. This includes the “red shift” observed by Hubble in the 1920s that showed the universe is expanding, which is consistent with Georges Le Maître’s mathematical model of an initial rapid expansion from a single point — known today as the “Big Bang” theory. We learn about the observations in the 1960s that found the “cosmic background radiation” — the traces of radiation from the Big Bang.

Sir John Polkinghorne explains that the Big Bang is a singularity, something that lies beyond science itself; this is important because *Cosmic Origins* does not limit itself to physics alone. To pursue answers to very fundamental questions, it will be necessary to reach beyond standard physics.

Science historian, Owen Gingerich, explains one such reach: the speculation that there could be a “bouncing” universe, where earlier the universe had collapsed into a black hole, and the Big Bang was a new explosion that followed. From there a collection of other speculative theories are discussed,

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such as the “Ekpyrotic” theory, whereby our universe collided with a different universe in another dimension — an idea which can come out of the ten-dimensional String theory.

Yet another possibility is the “Multiverse” theory where our universe is just the one holding the winning lottery ticket. Many of the popular TV presentations mislead the viewer by portraying the “multiverse” notion as realistic because some professor speculates about it; here we learn how fanciful it is. These ideas are accumulated from short clips in interviews with experts such as Arno Penzias, Lisa Randall, John Polkinghorne and others, but they coalesce in agreement that none of these speculations are really science because they are incapable of being verified.

Father Michael Heller, also a Templeton honoree, explains that some questions simply do not belong to science. Perhaps the most interesting question is, “Why is there even one universe?” The incredible numerical improbability of our being here is explored; for example, if the strength of gravity were off by just one part in 10^{120} , the universe would blow apart. We are led to “Penrose’s number” for the likelihood of intelligent life existing: one part in ten to the power of {ten to the 123rd power} or $10^{(10^{123})}$; and incidentally there are only about $10^{(80)}$ protons and neutrons in the universe!

This “fine tuning” shows that life anywhere in the universe is very special indeed. Even the fact that water expands when it freezes is remarkable: if it did not, there would be no life present here. We cannot reasonably attribute this to just random chance. Again, using the visual effect of jumping between student questions and expert replies, *Cosmic Origins* raises the topic of *purpose* in the universe: it certainly appears that the universe was put together for a purpose.

That leads naturally into metaphysics. Our existence is not pointless, but is not explained by science either. We’re now examining questions on a higher level than science alone. Father Spitzer explains that the universe could not have created itself; Arno Penzias states that space, time and matter were all created by Something that lies outside of space and time. Owen Gingerich argues that there *is* a *rational* creator, because our universe is intelligible.

We are presented with many good reasons to believe in a God who brings forth life and thinking beings: AND we *don’t* have to choose between physics and religious faith. They are compatible. At the close of the film a college student says, “There’s something larger than ourselves.”

Cosmic Origins is an excellent teaching aid, because it presents its case in an engaging and lively way — there are no lengthy “lectures” to endure, the questions addressed are important, and the viewer is kept in the loop throughout.

I particularly recommend this film for collegians who are being exposed to the secular-humanist propaganda that “science proves... [some claim, antagonistic to religious faith].” *Cosmic Origins* explains quite well that what we observe in the universe points strongly toward belief in God.

Thomas Sheahen, PhD (Physics)

Director, Institute for Theological Encounter with Science & Technology

www.faithscience.org

St. Louis, MO