Report October 13, 2026

Summary:

- **New Book, Papers Heat Cosmic Expansion**
- **ENN Announces First Boron Fusion in A Spherical Tokamak**

New Book, Papers Heat Cosmic Expansion Debate

A new book and three important papers have turned the heat up on the growing debate over the validity of the Big Bang and the cosmic expansion hypothesis. The increasingly public debate is helping to validate the astrophysical theories developed by Nobel Laureate Hannes Alfven, LPPFusion Chief Scientist Eric Lerner and many others. These theories have been central to understanding the plasma phenomena underlying the development of LPPFusion's Focus Fusion energy technology.

The new book is "Rethinking Cosmic Expansion: An Evidence-Based Critique of Modern Cosmology" by Dr. Riccardo Scarpa, Staff Astronomer at the Department of Astrophysics Research, Instituto de Astrofísica de Canarias. Lerner wrote the foreword to the book, where he writes, "In many ways, Dr. Scarpa's book is a sequel to my own 1991 book, *The Big Bang Never Happened."* Lerner continues that the recent flood of observations from the James Webb Space Telescope and other new instruments "makes the timing of this book particularly appropriate to explain to a broad, non-technical public what the debate is about, something Ric's book accomplishes admirably. Ric is the appropriate author for this book, having been among the few astrophysicists to have forthrightly stated the obvious—the Emperor has no clothes—the universe is not expanding. As his introduction describes, he has been in the trenches of the battle for scientific validity for decades. "

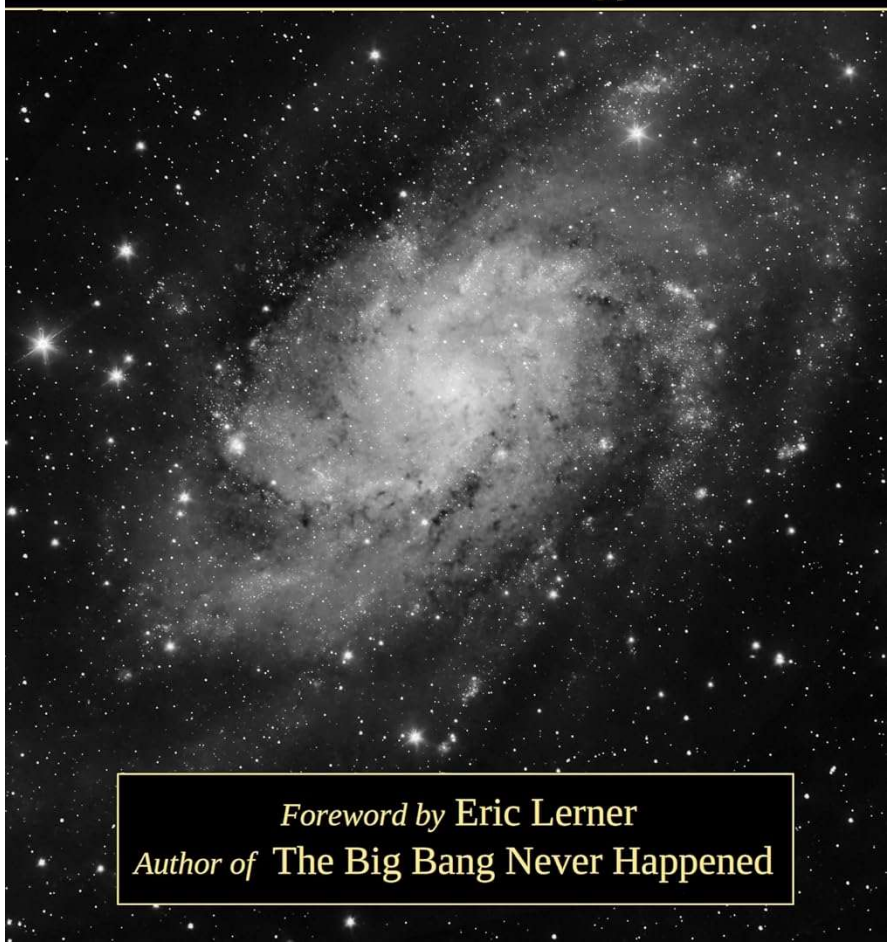
The correct knowledge of what science is today is more vital than ever to the solution of the crisis that humanity faces. This book is an excellent contribution to the popular understanding of what science is today, of how we can truly understand the world around us, so that we can collectively make the decisions that preserve and improve our lives. LPPFusion will be hosting a live YouTube interview with Dr. Scarpa on Nov.7th.

The cosmology debate is becoming more public in other ways in the past few months. In June, the leading science journal *Nature* published a paper by Francesco Sylos Labini (a long-time colleague of Lerner's) and Marco Galoppo demonstrating that anisotropic (aligned) superclusters of galaxies extend to scales up to a gigaparsec (3 billion lightyears). This is far larger than would be allowed in the Big Bang model, where there has been time for structures to grow only to the scale of about 250 Mpc. The existence of much larger structures contradicts the cosmological principle, a basic assumption of the expansion model that hypothesizes that the universe is homogeneous and isotropic at large scales. Without this (observationally contradicted) principle, Einstein's theory of General Relativity does not predict any expansion of the universe.

Riccardo Scarpa

RETHINKING COSMIC EXPANSION

An Evidence-Based Critique of Modern Cosmology



Foreword by Eric Lerner
Author of The Big Bang Never Happened

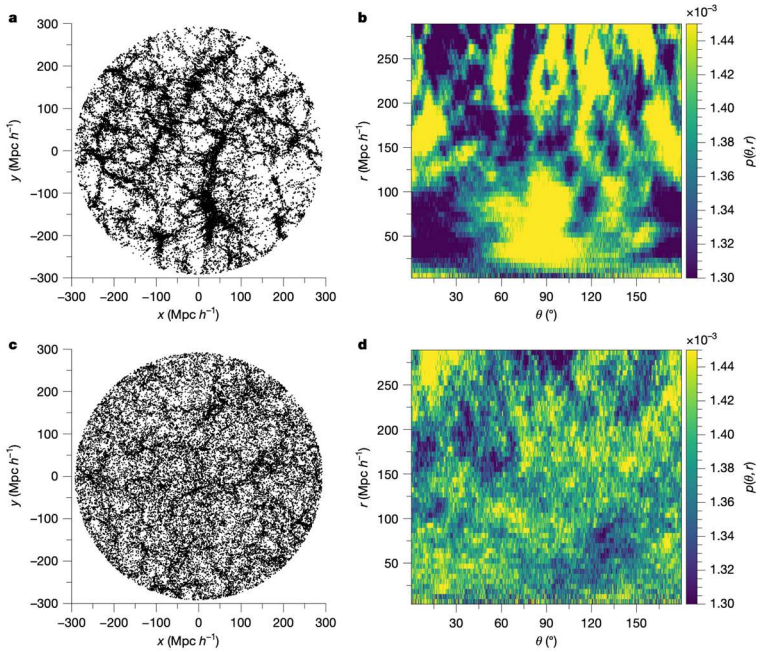


Figure 1. A June article in Nature by Francesco Sylos Labini and Marco Galoppo shows that the universe on large scales, mapped on top left, is far more structured than predicted with Big Bang assumptions (bottom left). The authors showed that a map of the alignment of each galaxy with its neighbors (top right) showed large-scale structures that simply don't exist in Big Bang predictions (bottom right)

ENN Announces First Boron Fusion in A Spherical Tokamak

ENN, the Chinese conglomerate and natural gas supplier that hosted the 4th International Symposium on Proton Boron Fusion Sciences and Application in July, has announced that they have achieved measurable fusion yield from hydrogen-boron fusion in their XL-50 U spherical tokamak. The reactions were achieved by first loading diborane (a compound of hydrogen and boron) and hydrogen into their device, which is a more compact version of the standard tokamak. They then shot beams of hydrogen atoms into the plasma, providing the high-energy particle needed for pB11 reactions. This is the third type of device to achieve measurable boron fusion, after lasers and stellarators, and the first time this was achieved in a private fusion company's own device. LPPFusion's Lerner has congratulated project director Martin Peng, who invented the spherical tokamak, and his colleagues on their achievement.

The total amount of fusion was not large, about 140 microwatts over a few tenths of a second. Since the beams along consumed 2 MW, the wall-plug efficiency, or fusion energy out divided by total energy in, was less than 70 micro J per MJ. By comparison, the best hydrogen boron wall-plug efficiency from a laser, announced at the Symposium, was 50J per MJ, almost a million times more. The next step for XL-50 U is heating the plasma hot enough that reactions take place more widely within the plasma. `