

Abstract Submitted  
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**In Our Expanding Universe, How Far Can We See and Where Can We Go?** LIONEL D. HEWETT, Texas A&M University-Kingsville — The latest experimental observations conclude that we are living in an infinite universe that is expanding exponentially outward. Clearly, the full extent of this infinite universe is not accessible to our observations today. As we look back toward the Big Bang, there is a visible horizon beyond which we cannot see. As we look toward the future, there is an accessible horizon beyond which we cannot go. What happens to these horizons as we move into the future? Do they grow to encompass the whole universe, or shrink to nothingness as the universe evolves? Do the myriads of galaxies currently seen on deep sky photographs eventually disappear over the horizon as they accelerate beyond the speed of light? Are there distant galaxies visible today that can never be reached, even if we learn to travel at the speed of light? This presentation answers these and other perplexing questions regarding the observational limits of our expanding universe.

Lionel D. Hewett  
Texas A&M University-Kingsville

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