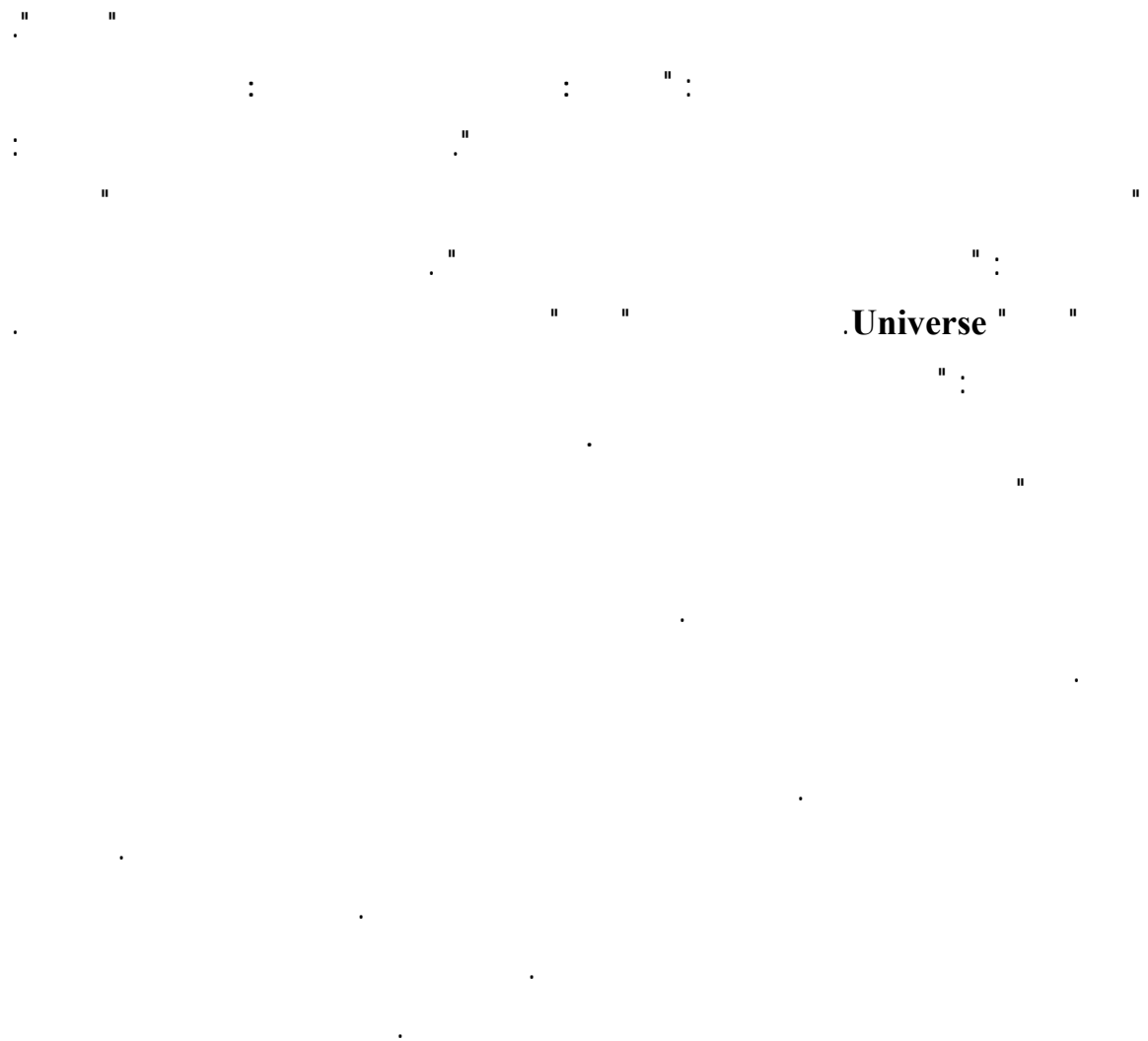


## توسع الكون بين الغزالي وابن مرشد

[Abhath Al-Yarmouk, vol.22, No.1 2006](#)

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Seleucid era ( - . )

Astronomical

Otto Neugebauer

## Cuneiform Texts

### A History of Ancient Mathematical Astronomy

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**Big Bang**

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**Cosmic Microwave Background**

**Open Universe "**  
**Spatially Flat**

**Closed Universe "**

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# The Expansion of the Universe According to Al-Ghazali and Averroes

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## Abstract

In this paper we expose the difference between the views of Al-Ghazali and Averroes in respect to the question of the expansion of the universe and whether the Universe can be larger or smaller than what it is. Al-Ghazali believed that it is possible for the universe to be smaller or larger than its observed size. On the contrary, Averroes, referring to Aristotle rejection of an infinite extension, believed that the universe must have a fixed size. In his arguments, Al-Ghazali adopted the *Mutakallimun* point of view in respect to the creation of the Universe; while Averroes was fully occupied by the philosopher's point of view. Astronomical observations performed during the first half of the twentieth century proved that Al-Ghazali was right.

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The cosmological principle, according to which the universe is homogeneous and isotropic on large scales, is sufficient to insure that a Newtonian universe cannot be static, but must be either expanding or contracting. A philosophical predisposition in western societies towards an unchanging, regular cosmos apparently prevented scientists from drawing this conclusion until it was forced upon them by 20 <sup>th</sup> century observations.	
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