NEWLY DISCOVERED RADIO RADIATION MAY PROVIDE
A CLUE TO THE ORIGIN OF THE UNIVERSE

Evidence that may support a new cosmological theory of
the universe recently proposed by Princeton University has
been observed at Bell Telephone Laboratories. The evidence
was found during a series of precision measurements of
radio astronomical sources employing the horn reflector
antenna used for the Telstar and Echo experiments.

After carefully measuring and accounting for all the
known sources of noise radiation from the earth atmosphere
and the galaxy, as well as from the antenna and associated
receiving equipment, Bell Laboratories scientists Arno
Penzias and Robert W. Wilson found a residual amount of
noise radiation which they could not explain.

On consultation with colleagues in the radio astronomy
field, they learned of the new theory proposed by Princeton
physicists R. H. Dicke, P. J. Peebles, P. G. Roll and D. T.
Wilkinson. One consequence of this theory is that there
should be an observed radiation from the universe of the same
order of magnitude as that observed at Bell Laboratories.

The Princeton work is based upon a theory that the
universe is expanding from a high-temperature collapsed
state. The energetic thermal radiation resulting from the
high temperature has been cooled by the expansion of the
universe to a tiny fraction of its original temperature and
is believed to be the source of the effect observed at
Bell Laboratories.

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