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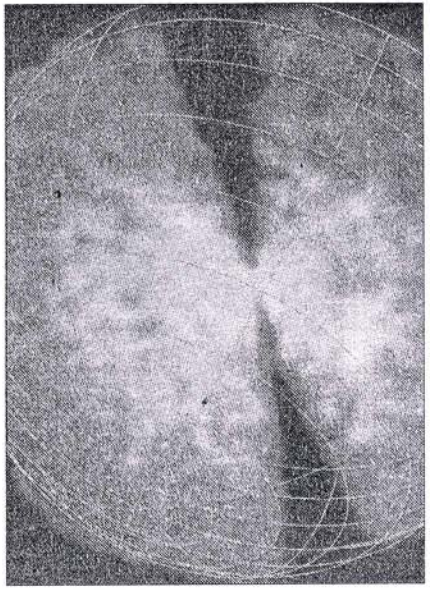
Speed of expansion of universe computed

A researcher has just managed to come up with one of the most accurate measurements ever made of how fast the universe is expanding into the unknown. Florian Beutler, a doctoral candidate with the International Centre for Radio Astronomy Research (ICRAR) at The University of Western Australia, has succeeded in calculating how fast the universe is growing by measuring the Hubble constant.

"The Hubble constant is a vital, key number in astronomy because it is used to calculate the size and age of the universe," said Beutler. The Hubble constant links how fast all the galaxies are moving with how far away they are from us, the monthly notices of the "Royal Astronomical Society" reports.

By analysing the light coming from a very distant galaxy, the speed and the direction of that galaxy can easily be measured.



But determining distance of that galaxy from Earth is a significantly more difficult task, according to a statement issued by the ICRAR.

Beutler tackled the problem by using a completely different method. He draws on data from a survey of more than 125,000 galaxies carried out with the United Kingdom Schmidt telescope located in eastern Australia. Called the 6dF galaxy survey, this is by far the biggest survey till date of relatively nearby galaxies, covering almost half of the sky.

Galaxies, of course, are not spread evenly through the space, but are clustered. Using a measurement of the clustering of the galaxies surveyed, plus other information derived from observations of the early universe, Beutler has measured the Hubble constant with an uncertainty of just less than five percent. *IANS*