

remembered by those who had the good fortune of making his acquaintance. By his own example, he showed how it is possible to link a thorough, advanced knowledge of exact sciences with a poetic, nature-loving mind and thus to achieve a rarely seen harmony between these two aspects of life.

A major reason for this was undoubtedly his great familiarity with both East and West. Born in India, Professor Bappu studied in the USA and after several, brilliantly successful years at Caltech, he returned to his native country, turning down offers from other places. During the next decades, he built up the science of astronomy and astrophysics in India, and without his efforts, it would not have reached the internationally recognized, high level it has today. While making many important contributions within the fields of stellar and solar astronomy (e.g. the "Wilson-Bappu" effect), he also fully

appreciated the importance of obtaining continuous support to astronomy by maintaining close contacts with government officials and by successfully impressing upon all authorities the central role of astrophysics in modern science.

Professor Bappu leaves behind many ideas and much unfinished work which will now be taken up by others. There is no doubt that his inspiring example has influenced many people and we can only regret that he did not live to see all of his projects come to realization.

Our sympathy goes to Mrs. Yemuna Bappu who was at her husband's side in Munich. We can do little to console her in her great sorrow, but the memory of our beloved friend and highly valued colleague will remain forever in our hearts. Professor Bappu's foresight and the full implications of his many achievements shall become even more obvious with time.

Richard M. West

Another Gravitational Lens?

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Following the discovery of the Q0957+561A,B pair and subsequent interpretation as a gravitationally lensed QSO, several searches for similar objects have been made, but only two cases have so far been confirmed. In collaboration with astronomers in Edinburgh, one of us (J.-S. Chen) started a QSO survey programme two years ago using low-dispersion objective-prism plates taken with the UK Schmidt telescope at Siding Spring Observatory. Three fields have been systematically searched and about 500 QSO candidates identified. Among these only one gravitational lens candidate was found. The images (Fig. 1) are close together ($7''$), bright ($17.5 m_v$), stellar, and blue, and the objective-prism spectra contain strong emission lines at very similar redshifts.

0128-531A,B

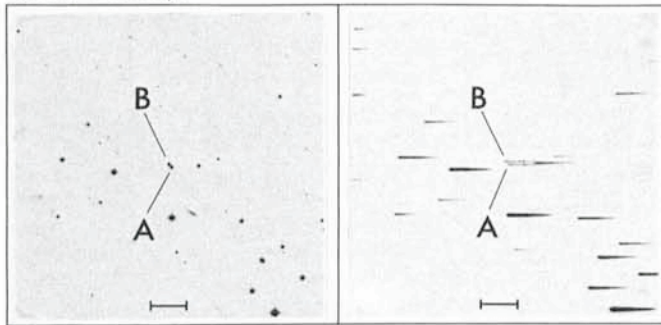


Fig. 1: The 0128-531A,B pair, on a IIIa-J + GG385 direct plate (left), and a IIIa-J objective-prism plate (right), both taken with the UK Schmidt telescope. The horizontal bar is 1 arcmin.

Spectra obtained recently with the IDS on the 3.6 m telescope at La Silla, however, conclusively reject the gravitational lens hypothesis. Indeed, these objects are not even QSOs. They are extragalactic H II regions, at redshift $z = 0.0885$. The strong emission lines seen in the objective-prism spectra are [O II] λ 3727. The H β , [O III] $\lambda\lambda$ 4959, 5007, and other strong lines seen in the IDS spectra in Fig. 2 are shifted outside the window of the IIIa-J objective-prism plate.

Several extragalactic H II regions have been misinterpreted as QSOs and included in QSO catalogues (for example, B234, B272, and Q0242-387 in the Hewitt and Burbidge catalogue). Such objects are often referred to as blue compact galaxies, and are thought to be protogalaxies because of the low metal abundances. The burst of first-generation star formation results in both a very blue continuum and strong ionization of the parent gaseous clouds. Extragalactic H II regions are therefore important in understanding the early evolution of galaxies, and the chemical abundances in the early universe (particularly primordial helium).

The 0128-531A,B extragalactic H II regions are very close together indeed, both in position ($8h^{-1}$ kpc projected separation for $H_0 = 100h$ km s $^{-1}$ Mpc $^{-1}$), and in redshift ($\Delta V = 40 \pm 50$ km/s). Are they really isolated, or are they part of one system, perhaps an underlying galaxy? If more such pairs can be found, it may be possible to estimate their masses from the relative velocities. Although it is not a gravitational lens system, therefore, 0128-531A,B will be of special interest in exploring a quite different type of phenomenon.

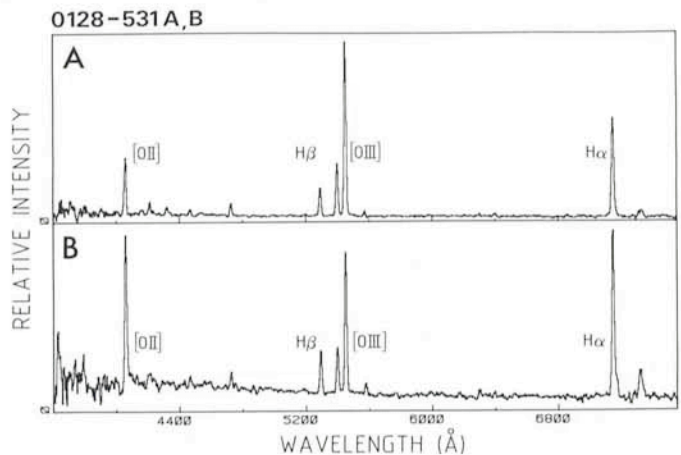


Fig. 2: Low-dispersion IDS spectra of 0128-531A and B, obtained with the ESO 3.6 m telescope. The resolution is 15 Å FWHM.