

EDITOR'S NOTE

Visual Horizons in World Models

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Received 1956 November 23

(Mon. Not. Roy. Astr. Soc. 116, 662 - 677 (1956).)

This paper has gotten its due credit. Its main results, the definitions of the event horizon and of the particle horizon, and the discussion of their properties in the Robertson–Walker class of models, have long become classic textbook material. Having been published in *Mon. Not. Roy. Astr. Soc.* the paper is rather widely available. Still, it is worth recalling for pedagogical reasons. It is one of the most beautiful examples existing in the literature of how one can gain deep and illuminating insights into a subject simply by understanding very clearly and in detail what the mathematics is telling us; a very simple mathematics in this case.

The author refers many times to two theories that had been popular at that time (more often as academic examples than as actual theories competing for experimental verification). One is the so-called kinematic relativity designed by Milne [1], the other is the steady-state theory of Bondi, Gold and Hoyle [2, 3]. Since the theories are no longer considered valid, and the first one has in fact been long forgotten now, they will not be explained here. Interested readers are advised to look up Refs. 1 – 3 and books on history of cosmology such as Ref. 4. Apart from this, there is no work to be done by an editor here. Rindler's paper is perfectly self-explanatory and enjoyable to read.

REFERENCES

- [1] Milne, E. A., *Kinematic relativity*. Clarendon Press, Oxford 1948.
- [2] Bondi, H., Gold, T. (1948). *Mon. Not. Roy. Astr. Soc.* **108**, 252.
- [3] Hoyle, F. (1948). *Mon. Not. Roy. Astr. Soc.* **108**, 372.
- [4] North, J. D., *The measure of the Universe. A history of modern cosmology*. Clarendon Press, Oxford 1965.

Short Biography

I was born in Vienna, Austria, on May 18, 1924. I came to England in 1938, eventually studying mathematics, under among others A.G.Walker at Liverpool University where I also began teaching as an assistant lecturer in 1947. Later I taught at the Sir John Cass College in London (1949-1956), Cornell University (1956-1963), the Southwest Center for Advanced Studies in Dallas (1963-1969), and the University of Texas at Dallas (1969-). My 1956 Ph.D. thesis on cosmology under G.J.Whitrow at Imperial College, London, gave rise to the horizon paper, in which the terms "event horizon" and "particle horizon" were first coined. Among some of my later contributions were the recognition and resolution of the length contraction paradox of special relativity (later called the pole-and-barn paradox), the introduction of Rindler space (a toy black hole later found useful in the study of real black holes), the extension of Milne's private space to general cosmology, the use of rotating coordinates in axisymmetric metrics, and papers both on Machian and anti-Machian effects. I have also written a number of textbooks, some of which were translated into foreign languages, beginning with *Special Relativity* (1960), *Essential Relativity* (1969), *Introduction to Special Relativity* (1982), *Spinors and Space-Time I and II* (with R.Penrose, 1984,1986) and, to appear in early 2001, *Relativity: Special, General, and Cosmological*.

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