

Biographical Encyclopedia of Astronomers

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Rankine, William John Macquorn

Born Edinburgh, Scotland, 5 July 1820

Died Glasgow, Scotland, 24 December 1872

Scottish railroad engineer William Rankine, among many other activities ranging over science and engineering, wrote down in 1869 a set of equations connecting the density, pressure, and temperature of gases on the two sides of a shock wave. These were generalized in 1887 by Pierre Henri Hugoniot (1851–1897) and, in the form of the Rankine-Hugoniot relations, can be used to describe, for instance, the propagation of a supernova remnant moving into the interstellar medium at a speed faster than that of sound.

Selected Reference

Duab, Edward E. (1970). "Waterston, Rankine, and Clausius on the Kinetic Theory of Gases." *Isis*. 61: 105.