

Biographical Encyclopedia of Astronomers

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Lorentz, Hendrik Antoon

Born Arnhem, the Netherlands, 18 July 1853

Died Haarlem, the Netherlands, 4 February 1928

Dutch physicist Hendrik Lorentz matriculated at the University of Leiden, earning a Ph.D. from there in 1875. His dissertation theoretically explained the Zeeman Effect. Lorentz eventually joined the faculty of his *alma mater*.

Lorentz discovered, independently of George FitzGerald, the phenomenon of the Lorentz-FitzGerald contraction and created the Lorentz equations (or transformations) that so influenced Albert Einstein. In his career he investigated electromagnetic theory, as well as the theories of motion, gravity, and thermodynamics.

Lorentz received the 1902 Nobel Prize in Physics along with Pieter Zeeman. Their prize-winning work has great astrophysical application because it showed how spectral lines could be used to measure the magnetic fields of the Sun, stars, and interstellar gas.

Daniel Kolak

Selected Reference

Lorentz, H. A. et al. (1952). *The Principle of Relativity: A Collection of Original Memoirs on the Special and General Theory of Relativity*. New York: Dover.