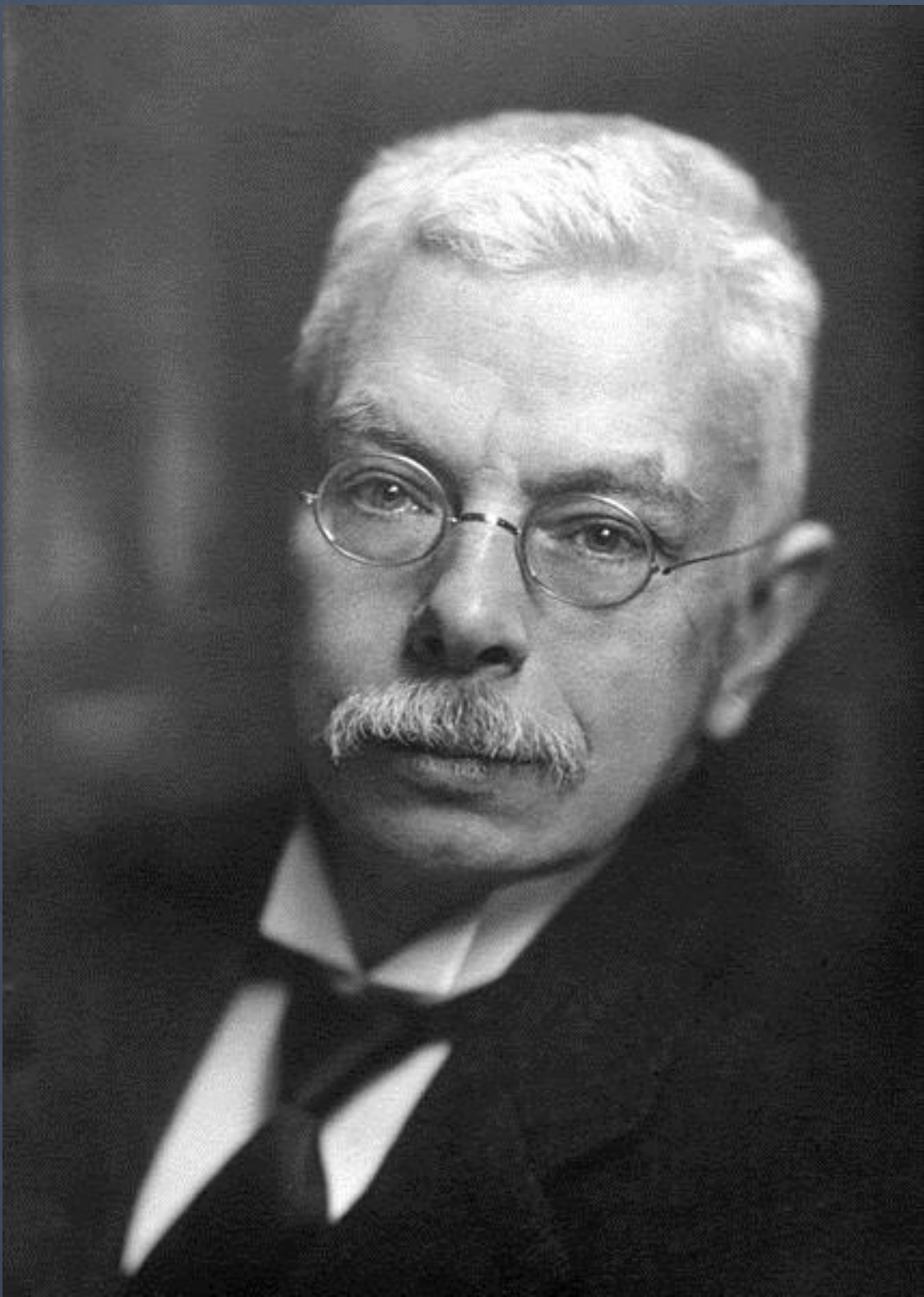


**Pieter Zeeman
&
Zeeman Effect**

An SVYM Initiative

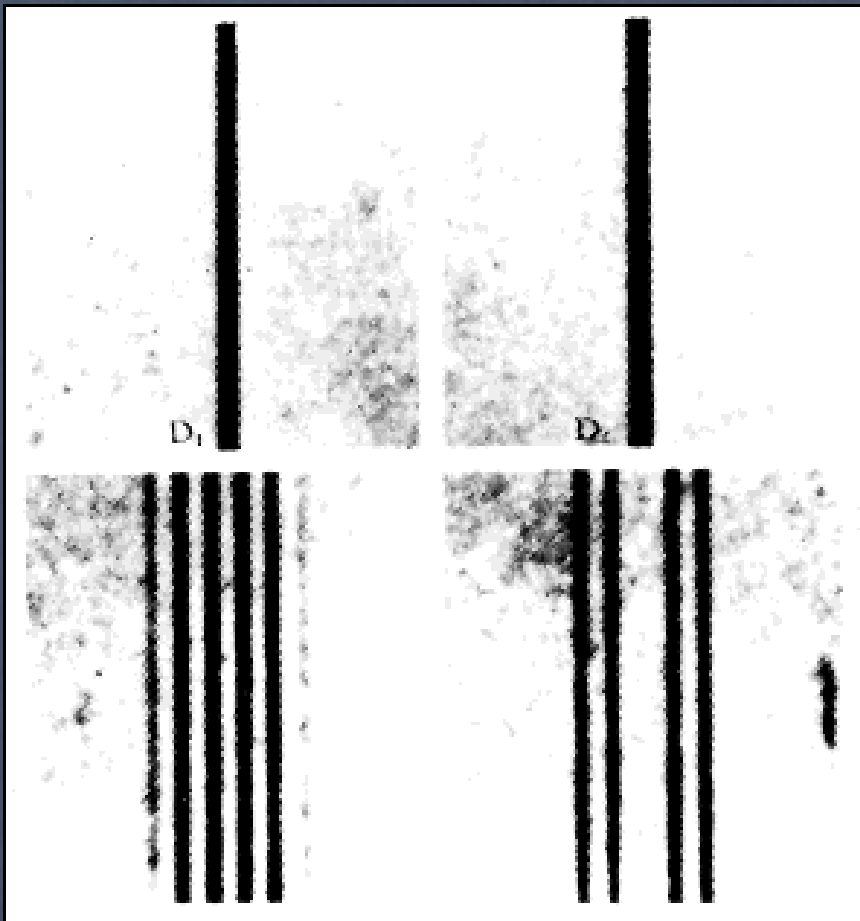


May 25, 1865 – birthday of **Pieter Zeeman**, a Dutch physicist who shared the 1902 **Nobel Prize in Physics** with Hendrik Lorentz for his discovery of the Zeeman effect.



Zeeman studied physics at the **University of Leiden** under Kamerlingh Onnes and Hendrik Lorentz.

In 1890, even before finishing his thesis, he became Lorentz's assistant. This allowed him to participate in a research programme on the Kerr effect.



After submitting his thesis on the Kerr effect, he disobeyed the direct orders of his supervisor and used laboratory equipment to measure the splitting of spectral lines by a strong magnetic field.

He was fired for his efforts, but he was later vindicated: he won the 1902 Nobel Prize in Physics for the discovery of what has now become known as the **Zeeman effect**.



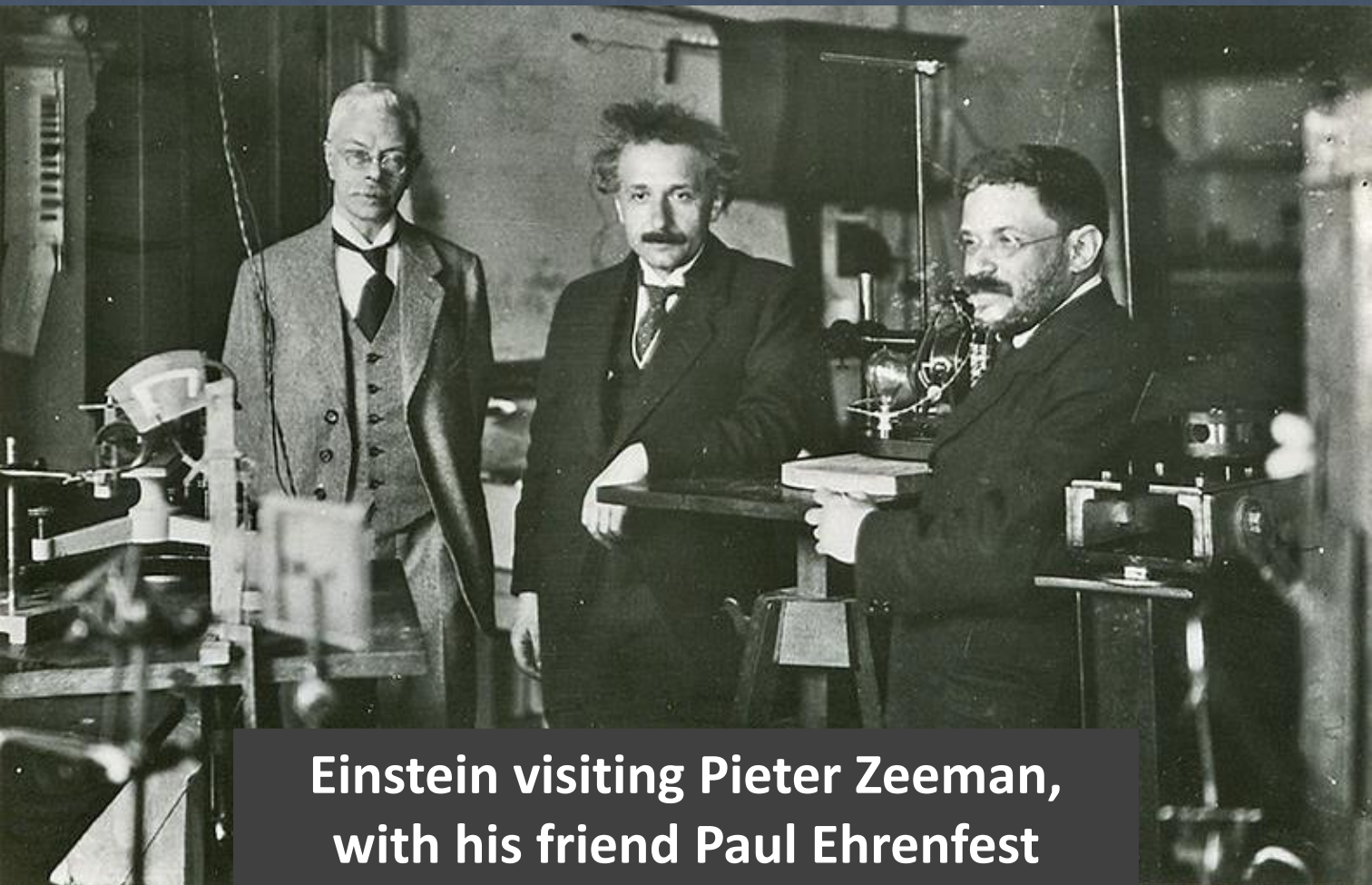
H.A. Lorentz



P. Zeeman

He later began investigating the effect of magnetic fields on a light source. He discovered that a spectral line is split into several components in the presence of a magnetic field.

Lorentz presented Zeeman with an explanation of his observations, based on Lorentz's theory of electromagnetic radiation.



**Einstein visiting Pieter Zeeman,
with his friend Paul Ehrenfest**

A new laboratory built in Amsterdam in 1923 allowed Zeeman to pursue refined investigation of the Zeeman effect. For the remainder of his career he remained interested in research in Magneto-Optics.

He also investigated the propagation of light in moving media. This subject was also an area of interest for Lorentz and Einstein.



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