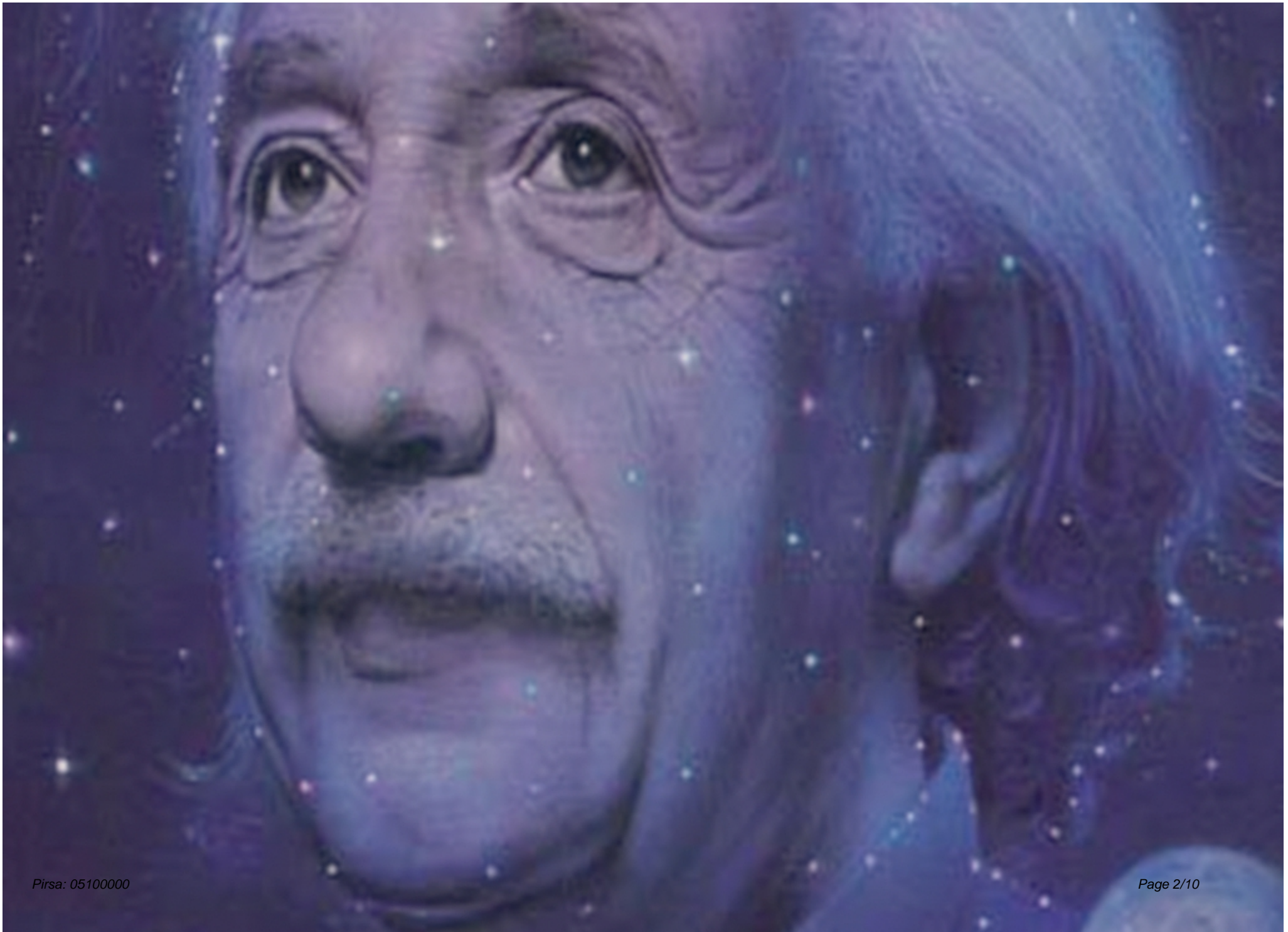


Title: Setting the Stage for 1905 - The 19th Century: Physics becomes Queen of the Sciences and Part of Culture

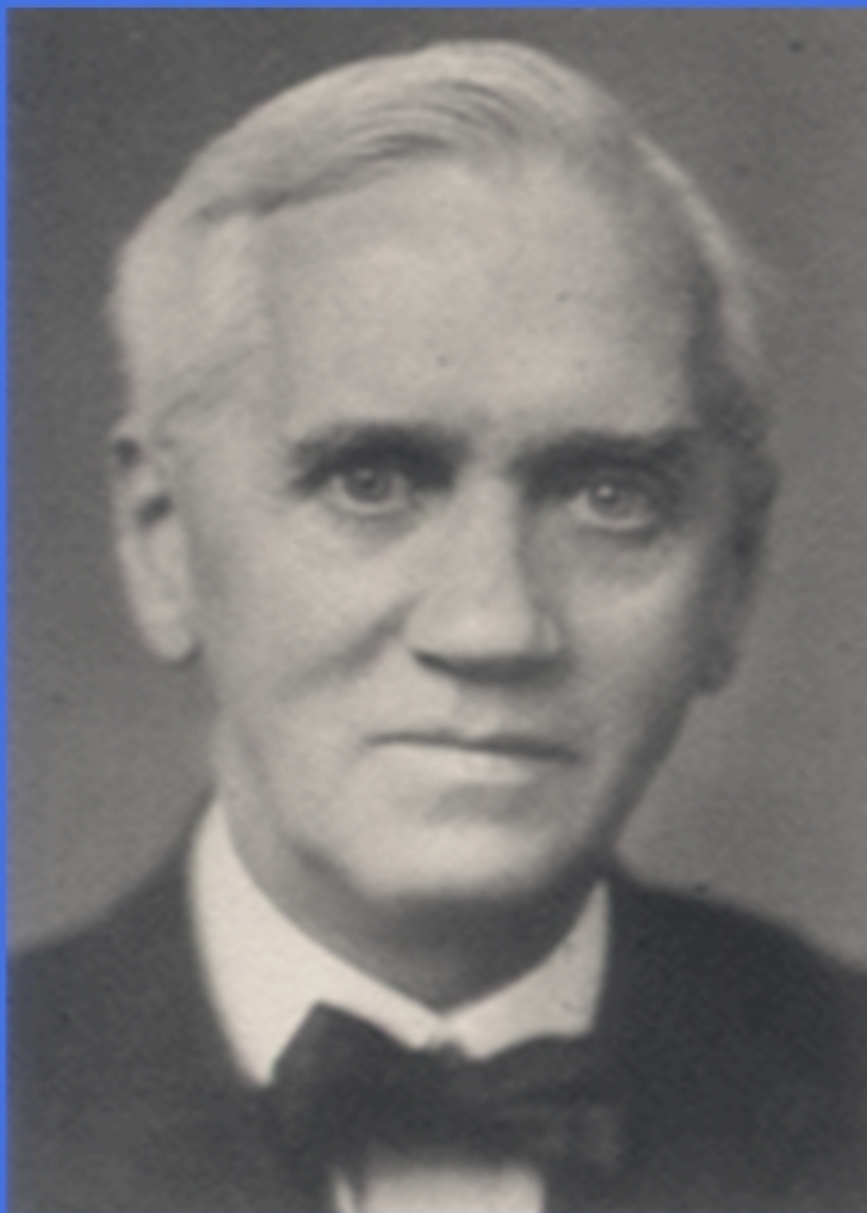
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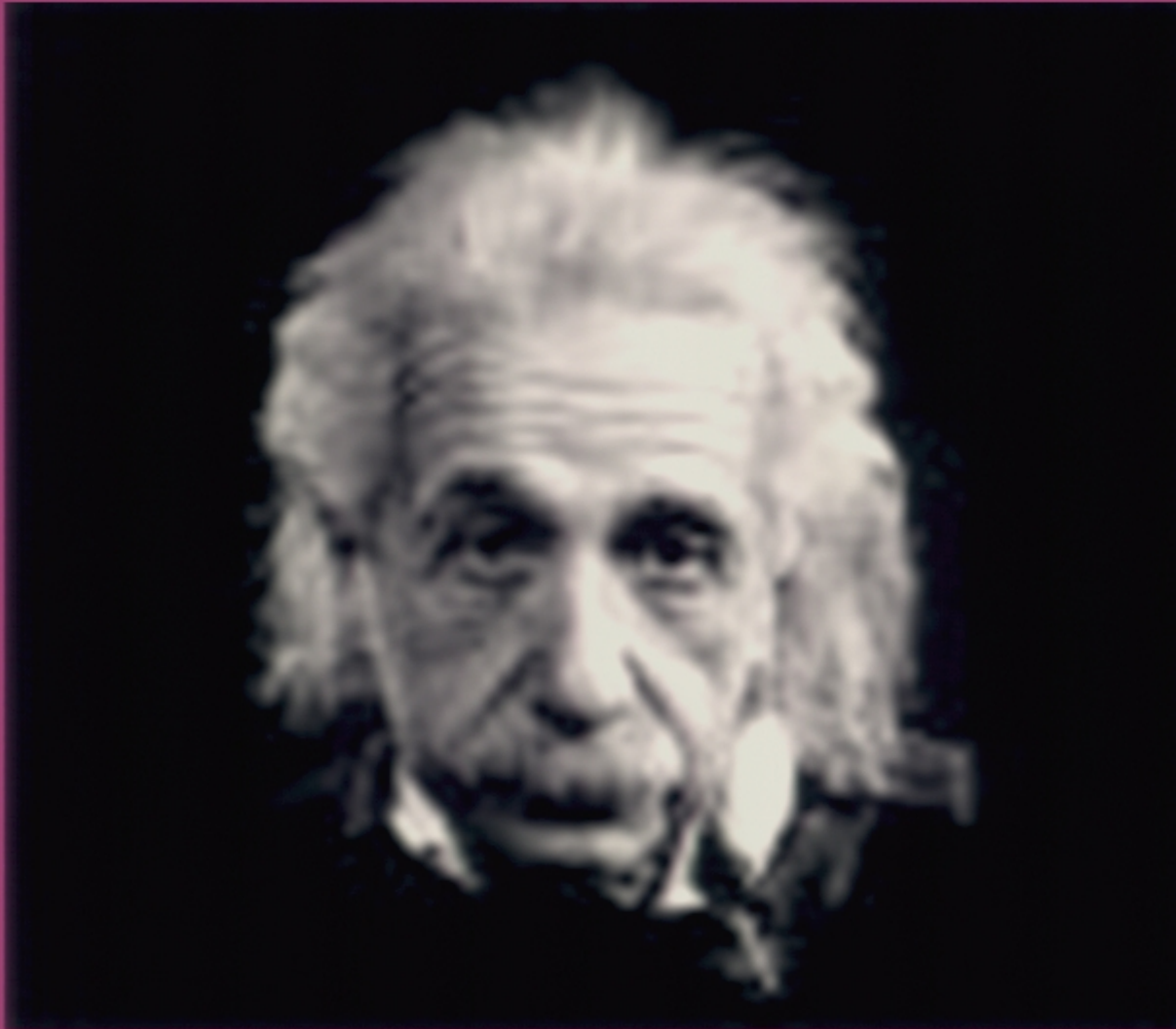
URL: <http://pirsa.org/05100000>

Abstract: The achievements of 19th Century physicists stand shoulder to shoulder with those of their 20th Century successors. Physics, per se, did not exist in 1800, but a century later, physics not only existed, but was regarded as the model for all sciences. During the 19th Century, the physics that dominates current introductory textbooks was brought to completion. Electricity and magnetism, two separate domains of Nature, were united as electromagnetism; the laws of thermodynamics were established; the kinetic theory of matter was developed in its current form; and the nature of light, the crowning achievement of 19th Century physics, was demonstrated to be an electromagnetic wave. The substantive achievements were stunning. But more than the technical successes, 19th Century physicists made the subject part of the larger culture. <kw> John S Rigden, 19th century, 20th century, electromagnetism, thermodynamics, physicists, light wave, kinetic matter, energy, culture </kw>











Pirsa: 05100000

Thomas Mann
1875-1955
Author – *Magic Mountain* 1924
Nobel Prize in
Literature 1929



Alexander Fleming

1881-1955

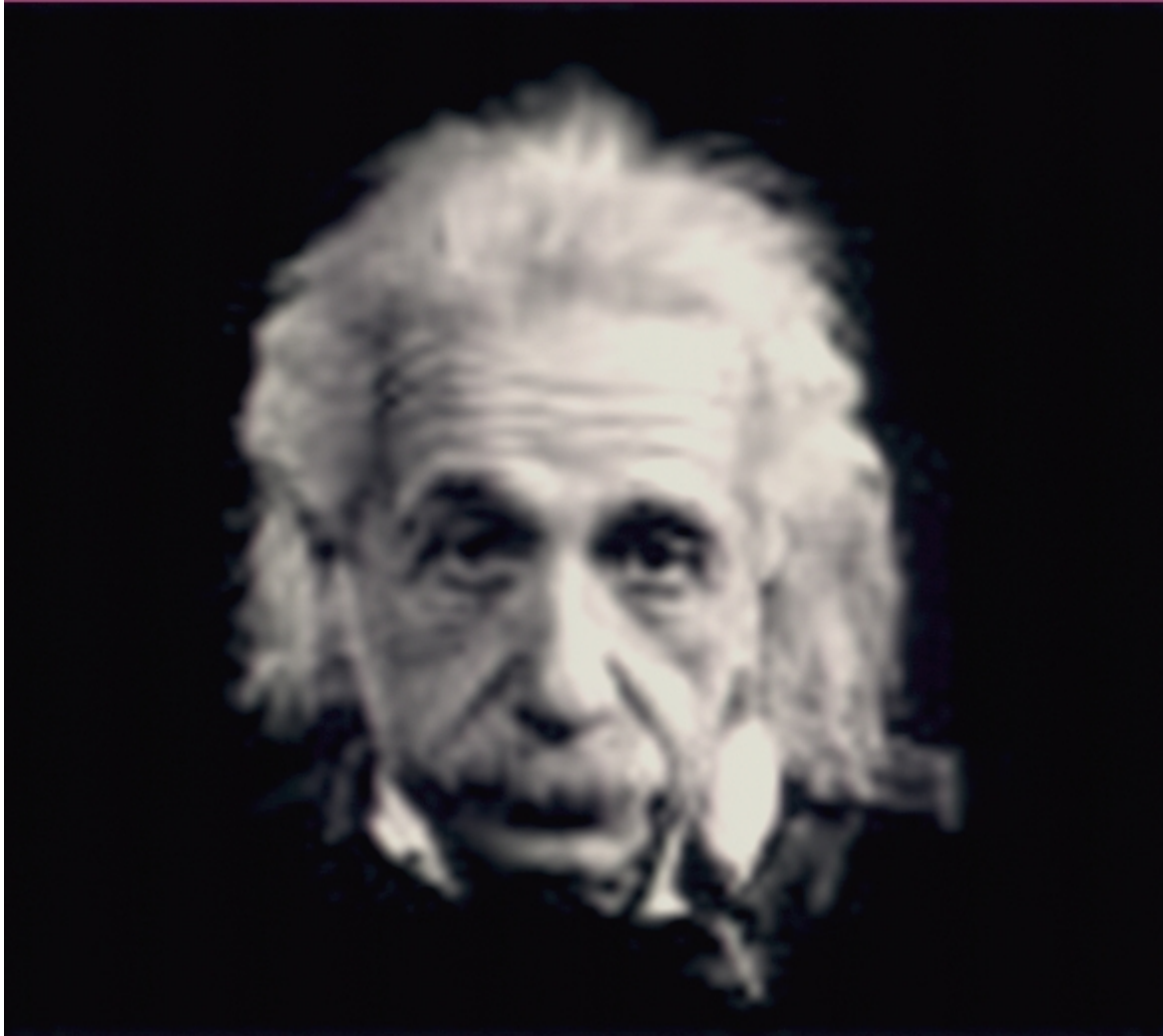
Bacteriologist –

Discovered

Penicillin 1928

Nobel Prize

Medicine 1945



Albert
Einstein –
1879-1955
Physicist
Nobel Prize
1921



Light and Atoms



Thermodynamics and
Kinetic Theory



Mechanics, Thermo. and
Kinetic Theory



Light and the Ether



Mechanics and
Electromagnetism

