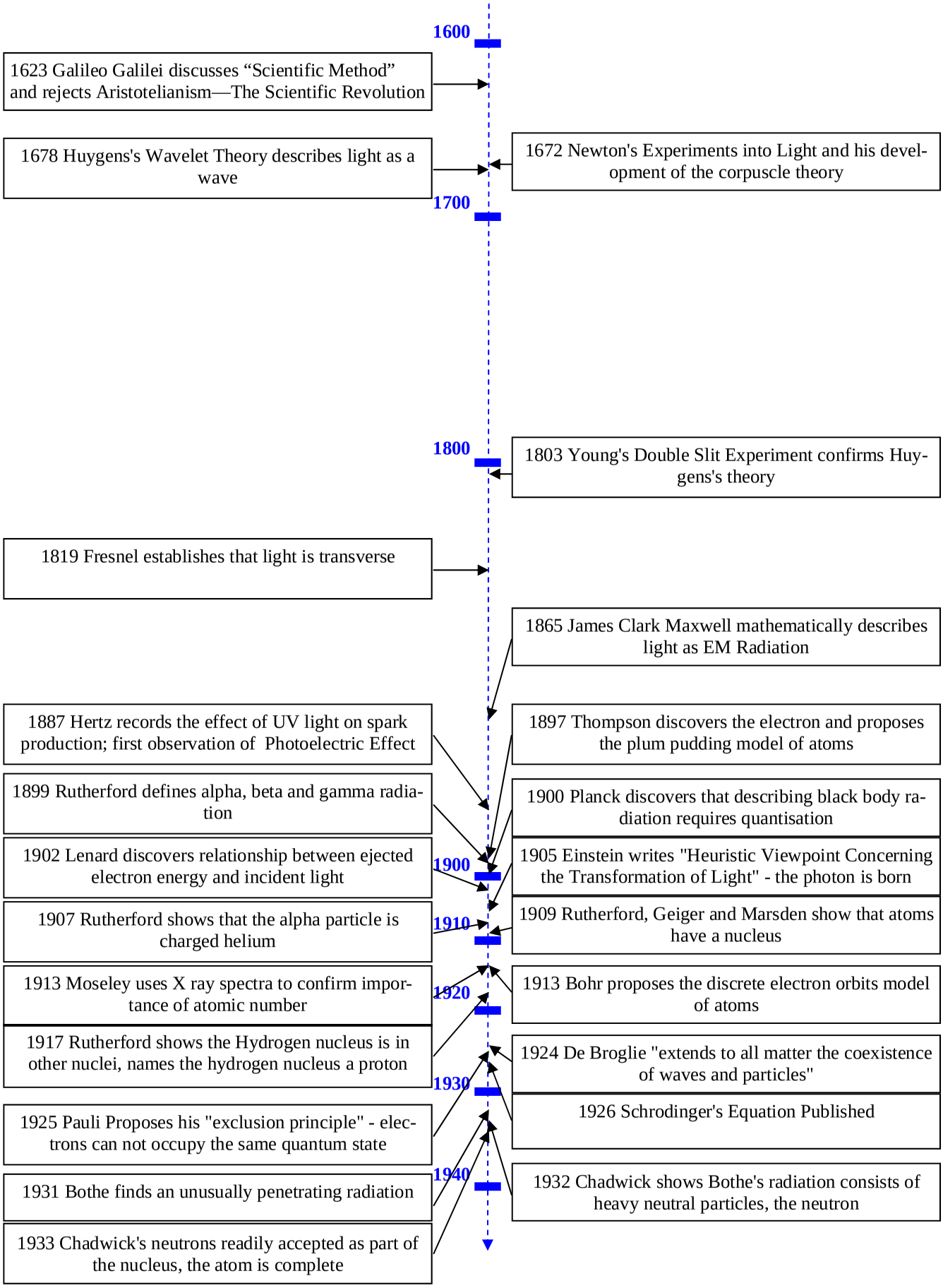
1600
1623 Galileo Galilei discusses “Scientific Method” and rejects Aristotelianism—The Scientific Revolution
1678 Huygens's Wavelet Theory describes light as a wave
1672 Newton's Experiments into Light and his development of the corpuscle theory
1700
1800
1803 Young's Double Slit Experiment confirms Huygens's theory
1819 Fresnel establishes that light is transverse
1865 James Clark Maxwell mathematically describes light as EM Radiation
1887 Hertz records the effect of UV light on spark production; first observation of Photoelectric Effect
1897 Thompson discovers the electron and proposes the plum pudding model of atoms
1899 Rutherford defines alpha, beta and gamma radiation
1900 Planck discovers that describing black body radiation requires quantisation
1902 Lenard discovers relationship between ejected electron energy and incident light
1900
1905 Einstein writes "Heuristic Viewpoint Concerning the Transformation of Light" - the photon is born
1907 Rutherford shows that the alpha particle is charged helium
1910
1909 Rutherford, Geiger and Marsden show that atoms have a nucleus
1913 Moseley uses X ray spectra to confirm importance of atomic number
1920
1913 Bohr proposes the discrete electron orbits model of atoms
1917 Rutherford shows the Hydrogen nucleus is in other nuclei, names the hydrogen nucleus a proton
1924 De Broglie "extends to all matter the coexistence of waves and particles"
1930
1926 Schrodinger's Equation Published
1925 Pauli Proposes his "exclusion principle" - electrons can not occupy the same quantum state
1940
1931 Bothe finds an unusually penetrating radiation
1932 Chadwick shows Bothe's radiation consists of heavy neutral particles, the neutron
1933 Chadwick's neutrons readily accepted as part of the nucleus, the atom is complete