

MS2119

Manuscript papers (12), unpublished and published, of German physicist Heinrich Hertz. [The published papers appear in *Gesammelte Werke von Heinrich Hertz. Band I: Schriften vermischten inhalts*, Leipzig 1895; *Band II: Untersuchungen über die Ausbreitung der elektrischen Kraft*, Leipzig 1894', referred to below as CW I & II.]

Hertz (1857-1894) laid down the foundations for the development of radio communication. These papers lead up to his demonstration of the properties of electro-magnetic waves. He did not realise their potential value for communication and died before others, such as Marconi, began to apply his work to practical ends.

The papers, presented by Drs. Johanna and Mathilde Hertz, Hertz's daughters, are on Science Museum inventory 1959-244 to 255.

They comprise, in order:

Theorie des Magnetismus / Theory of magnetism. 1878 (unpub.)

Nachweis elektrische Wirkung in Dielektricitat / On the electrodynamic influence of di-electrical movements. 1878 (unpub.)

Obere Grenze für die kinetische Energie der bewegten Elektrizität / On the upper limits for the kinetic energy of moving electricity. 1881 (CW I.4)

Über eine die elektrische Entladung begleitende Erscheinung / On the phenomenon accompanying the electrical discharge. 1883 (CW I.12)

Über die Verdunstung der Flüssigkeiten insbesondere des Quecksilbers, im luftleeren Raume / On the evaporation of liquids with special reference to mercury in vacuum. 1882 (CW I.8);
with paper 'About the vapour-presence of saturated mercury vapour', and an additional note.

Über das Gleichgewicht schwimmender elastischer Platten / On the equilibrium of (infinitely large) floating elastic plates (i.e. sheets of ice water). 1884 (CW I.16)

Über die Berührung fester elastischer Körper und über die Härte / On the collision of solid elastic bodies and their hardness. 1882 (CW I.6);
with, attached, pp.7-18 of an unconnected paper, seemingly an incomplete draft of a paper re electrical co-ordinates.

Graphische Methode zur Bestimmung der adiabatischen Zustandsänderungen feuchter Luft / On a graphical method for determining the adiabatic variations of moist air. 1884 (CW I.19)

Über einen Einfluss des ultravioletten Lichtes auf die elektrische Entladung / On the effect of ultra-violet light on the electrical discharge. 1887 (CW II.4)

Über sehr schnelle elektrische Schwingungen / On very fast electrical oscillations. 1887 (CW II.2)

Über elektrodynamische Wellen im Luftraume und deren Reflexion / On electromagnetic waves in air and their reflexion. 1888 (CW II.8)
(Appears to be a final draft.)

Über die Einwirkung einer geradlinigen elektrischen Schwingung auf eine benachbarte Strombahn / On the action of a rectilinear electrical oscillation on a neighbouring circuit. 1888 (CW II.5)
(Appears to be final draft.)