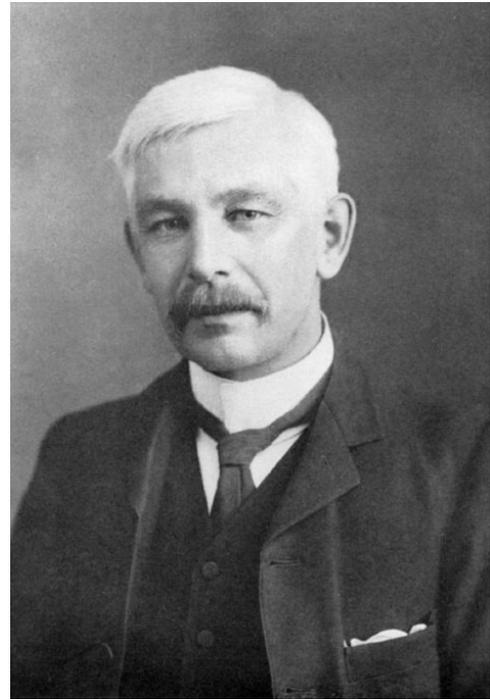


## King's College

### *Noted students of Physical Science*

#### **Charles Chree**

Charles Chree FRS (1860-1928) was a son of the manse at Lintrathen, not far from Kirriemuir. He graduated as gold medallist from the University of Aberdeen in 1879 and in 1883 graduated BA as 6<sup>th</sup> Wrangler at Cambridge. After some further study he became a Fellow of King's College Cambridge where he devoted much of his time to the mathematical physics of elasticity, publishing some 30 papers on the subject over the next 8 years<sup>1</sup>. In 1893 he was appointed superintendant of the Kew Observatory. At that time the observatory was run by the Royal Society and funded from donations but it had three very important tasks: it made hourly meteorological observations and coordinated national weather data, it ran the national magnetic observatory and it calibrated a range of instruments, notably thermometers, barometers, hygrometers and optical instruments.



While running the whole observatory, Chree became particularly interested in the terrestrial magnetism measurements. He wrote his first paper on the subject in 1895, analysing data from the previous 5 years, and he produced a series of fundamental papers on the analysis of magnetic records over the next two decades. In all he published over 70 papers on geomagnetism.

The Kew Observatory became part of the National Physical Laboratory in 1900 and its running was taken over by the Met Office in 1910. Chree realised that the Kew magnetometers were receiving interference from electrical trams and organised two new observing stations well away from such interference, one at Eskdalemuir, opened in 1908, and one in Lerwick, opened in 1921. These stations still operate. Chree became President of the Physical Society of London (predecessor to the Institute of Physics) in 1908, President of the Royal Meteorological Society in 1922 and also President of the International Union of Geodesy and Geophysics from 1922-1927, amongst other distinctions<sup>2</sup>. Chree resigned from the Met. Office in 1925 and died still active in geomagnetism research in 1928. The Chree Medal and Prize was instigated in 1939 by the Physical Society following a bequest by his sister, Jessie Chree, and generally awarded in alternate years until it was renamed in 2008. The first recipient was Sydney Chapman<sup>3</sup>.

Chree was one of the pioneering researchers who established evidence that fluctuations in the magnetic field at the surface of the Earth were ultimately due to variability of the Sun, notably sunspot activity. This is a subject of intense interest in the 21<sup>st</sup> century, being linked to variations in 'space weather'.

*John S. Reid*

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<sup>1</sup> Obituary of Charles Chree, Proc. Roy. Soc. Vol. 122A, vii-xiv (1929)

<sup>2</sup> D. E. Pedgley "Pen Portraits of Presidents – Charles Chree, ScD, Lld, FRS" Weather, vol. 49, June 1994, pp 223-224.

<sup>3</sup> S. Chapman "Charles Chree and his Work on Geomagnetism", Proc, Phys. Soc., vol. 53, no. 300, pp 629-634 (1941).