

Career

He began work at the University of Manchester, 1934–1947, as an Assistant Lecturer, later Senior Lecturer and Reader, under Prof William Lawrence Bragg. At Manchester he continued work on nuclear spins and did war work involving the optical spectroscopy of uranium-235 measuring its spin. He also developed multiple-beam interferometry, continued teaching and wrote "Introduction to Atomic Physics" in 1942.

From 1947 to 1973 he was Professor of Physics at Royal Holloway College, University of London. In 1960 he supported the admission of male undergraduates to what was founded as a women's only college. They were finally admitted in 1965. Male postgraduates had been admitted from 1945.

He was elected a Fellow of the Royal Astronomical Society, 1947, and of the Royal Society, 1952.

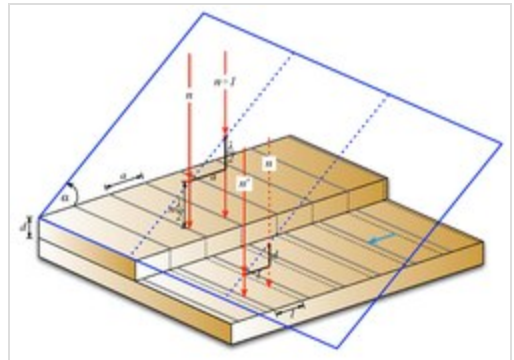
He was awarded the C. V. Boys Prize for contributions to optics by the Physical Society of London in 1948; he was a Silver Medallist, Royal Society of Arts in 1961.

Amongst work he carried out he was particularly interested in the optics of diamond and, partly in this respect, investigated optical characteristics of Moon dust from the Apollo 11 first Moon landing. In 1969 he appeared on the BBC astronomy programme *The Sky at Night* explaining the dimensions of space, and introduced the concept of 2-dimensional 'Flatlanders'.

Publications by Tolansky

Noted from the Royal Holloway College archive:^[3]

- Editor of Practical handbook on spectral analysis Pergamon Press, Oxford, 1964, ASIN: B001OP6BCG
- An introduction to interferometry (Longmans, Green and Co, London, 1955)
- Curiosities of light rays and light waves (Veneda Publishing, London, 1964)
- Fine structure in line spectra and nuclear spin (London, 1935)
- High resolution spectroscopy (Methuen and Co, London, 1947)
- Introduction to atomic physics (Longmans and Co, London, 1942)
- Multiple-beam interferometry of surfaces and films (Clarendon Press, Oxford, 1948)
- Optical illusions (Pergamon Press, Oxford, 1964);
- Surface microtopography (Longmans, London, 1960); The history and use of diamond (Methuen and Co, London, 1962)
- Editor of *The human eye and the sun: hot and cold light* (Pergamon Press, Oxford, 1965)
- Interference microscopy for the biologist (Thomas, Springfield Illinois, 1968)
- The strategic diamond (Oliver and Boyd, Edinburgh, 1968)
- Revolution in optics (Penguin Books, Harmondsworth, 1968)
- Microstructures of surfaces using interferometry (Arnold, London, 1968).



Tolansky-Method for measurement of layer thickness by interferometry

- Hyperfine structure in line spectra and nuclear spin (Methuen's monographs on physical subjects, Methuen & Co. LTD. London, 1948)

External links

- Samuel Tolansky papers held at the University of London (<http://archives.uurls.lon.ac.uk/Details/archive/110007215>)
- Samuel Tolansky papers held at Royal Holloway College (<http://www.calmview.eu/royalholloway/CalmView/Record.aspx?src=CalmView.Catalog&id=PP22&pos=2>)

References

1. Ditchburn, R. W.; Rochester, G. D. (1974). "Samuel Tolansky 1907-1973" (<https://doi.org/10.1098/rsbm.1974.0019>). *Biographical Memoirs of Fellows of the Royal Society*. **20**: 429–455. doi:10.1098/rsbm.1974.0019 (<https://doi.org/10.1098/rsbm.1974.0019>). JSTOR 769649 (<http://www.jstor.org/stable/769649>).
2. R. W. Ditchburn, rev. Isobel Falconer (2004). "Tolansky, Samuel (1906–1973)". *Oxford Dictionary of National Biography* (online ed.). Oxford University Press. doi:10.1093/ref:odnb/31765 (<https://doi.org/10.1093/ref:odnb/31765>). (Subscription, Wikipedia Library (<https://wikipedialibrary.wmflabs.org/partners/88/>) access or UK public library membership (<https://www.oxforddnb.com/help/subscribe#public>) required.)
3. "Royal Holloway College Archive with full list of awards and honours" (<https://web.archive.org/web/20120218111849/http://www.aim25.ac.uk/cats/11/929.htm>). Archived from the original (<http://www.aim25.ac.uk/cats/11/929.htm>) on 18 February 2012. Retrieved 11 November 2012.
4. "Science, Optics and You – Optical Microscopy at the National High Magnetic Field Laboratory" (<http://micro.magnet.fsu.edu/optics/timeline/people/tolansky>). Retrieved 14 January 2009.
5. "100 years of Samuel Tolansky, a talk by Moreton Moore, Professor of Physics, at Royal Holloway College, 2007, with photographs and illustrations of his work" (<https://web.archive.org/web/20090326160121/http://www.ph.rhul.ac.uk/events/TolanskyTalk.pdf>) (PDF). Archived from the original (<http://www.ph.rhul.ac.uk/events/TolanskyTalk.pdf>) (PDF) on 26 March 2009. Retrieved 14 January 2009.
6. Bingham, Caroline (1987). *The history of the Royal Holloway College 1886–1986* (<https://archive.org/details/historyofroyalho0000bing>). London: Constable. ISBN 978-0-09-468200-9.

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