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The Rayleigh Papers THOMAS MILLER, Hanscom AFB, BENJAMIN BEDERSON, New York University — The Third Lord Rayleigh (1842-1919), aka John William Strutt, was among the most stellar physicists of the Nineteenth Century, in both theory and experiment. He spent most of his mature years in his own laboratory, self-funded, on his family estate. One of the consequences was the fact that all of his papers remained at the estate upon his death. After his son's (Robert John Strutt, 1875-1947) death both their scientific papers ended up on the auction block. (Robert John was himself an atmospheric physicist.) Part of the Strutt collection went to the Burndy Library of the Dibner Institute at MIT, but most landed in the library at the US Air Force Cambridge Research Laboratory (now the Air Force Research Laboratory at Hansom AFB), purchased from the auctioneer out of library funds, for \$9,000. The individual most responsible for preserving these papers was John N. Howard, the laboratory Chief Scientist, who was a founding editor of the journal Applied Optics. Recently the authors examined first hand the Rayleigh papers. Included in these are a complete set of his handwritten scientific notes, taken over the period 1862-1919, from the time he was a student at Trinity College, Cambridge until just months before his death. We will show a number of interesting examples from these notes, including his first identification of argon, as well as some other fascinating items from the collection.

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