



AUGUSTA
UNIVERSITY

SEMINAR

Friday, Feb. 8th at 1:00PM

SCI W1008

W. M. Goss, Ph.D.

National Radio Astronomy Laboratory
Very Large Array/Very Long Baseline
Socorro, New Mexico



The Opening of the Second Window on the Universe in 1945:

Radio Astronomy in Australia and the Role of Ruby Payne-Scott, First Woman Radio Astronomer

In 1945, there were only 10 million people in Australia, 45th in population in the world. How is it possible that Australian scientists opened a new window on the universe, radio astronomy, in October 1945? Their efforts, along with colleagues in the United Kingdom, were based on techniques derived from radar research during World War II on behalf of the armed forces.

Dr. W.M. Goss will summarize their exciting story from 1945 to 1951. A major participant in this group was Ruby Payne-Scott. The seminar will examine a brief history of her life and career, the second woman to obtain a degree in physics in Australia. She overcame discrimination to make major contributions to the new field of radio astronomy.

W. Miller Goss received his undergraduate degree in astronomy from Harvard in 1963 and a Ph.D. from the University of California (Berkeley) in 1967, while working on the newly discovered OH radio frequency line at the Hat Creek Observatory. He then moved to Australia to the CSIRO Division of Radiophysics, first as a postdoctoral fellow and later as a staff member. In 1976, he was the recipient of the Pawsey Medal of the Australian Academy of Science. From 1977 to 1986, he was on the staff of the Kapteyn Astronomical Institute of the University of Groningen, the Netherlands, and then professor from 1980 to 1986. In 1986, he moved to the National Radio Astronomy Observatory (NRAO) in Socorro New Mexico (USA). He was director of the Very

Large Array and the Very Long Baseline Array from 1988 to 2002. He and Dick McGee published *Under the Radar, the First Woman in Radio Astronomy: Ruby Payne-Scott* in 2009. Along with R.H. Frater and H.W. Wendt, he co-wrote *Four Pillars of Radio Astronomy: Mills, Christiansen, Wild, Bracewell*, published in 2017 by Springer. W.M. Goss' scientific interests are radio astronomical studies of the interstellar medium in the Milky Way and nearby galaxies. W.M. Goss is currently an emeritus scientific staff member of NRAO and is the author of over 500 astronomical publications.