

PAWSEY MEDAL 1976

W. MILLER GOSS

Citation

After finishing his PhD in radio astronomy at Berkeley, Dr Goss joined CSIRO in 1967 to carry out investigations on the interstellar medium with radio telescopes at Parkes, NSW.

During the next three years Dr Goss made important contributions in three areas. Firstly, he discovered many new regions in the southern Milky Way where interstellar hydroxyl radicals are stimulated to emit intense MASER radiation. Secondly, he participated in a fundamental investigation of the distances to galactic radio sources by using the Parkes interferometer to measure the absorption produced by intervening clouds of hydrogen atoms. Thirdly, he organized collaborative observations with the Parkes and Molonglo radio telescopes to produce a magnum opus on supernova remnants and ionized hydrogen regions in the Galaxy.

After several fruitful years spent in Germany and the Netherlands, Dr Goss returned to Australia in 1974. Since then he has continued his work on spectroscopy of the interstellar medium with the Parkes radio telescope, concentrating particularly on the MASER emission from water vapour molecules. He has also begun a large project to determine the masses and evolutionary state of distant galaxies by detecting the emission from their interstellar hydrogen atoms.

Dr Goss is also now involved with a joint programme of observations of radio sources using the Fleurs Synthesis Telescope of the University of Sydney.

Dr Goss has a fertile mind that leads him to work on a wide range of significant astrophysical problems. He combines this with remarkable energy and dedication to bring massive projects to speedy fruition. Joe Pawsey would have been proud of him.