# Abstracts

## Multifrequency Cryogenically Cooled Front-End Receivers for the Westerbork Synthesis Radio Telescope (Short Papers)

*J.L. Casse, E.E.M. Woestenburg and J.J Visser. "Multifrequency Cryogenically Cooled Front-End Receivers for the Westerbork Synthesis Radio Telescope (Short Papers)." 1982 Transactions on Microwave Theory and Techniques 30.2 (Feb. 1982 [T-MTT]): 201-209.*

Four of the fourteen 25-m antennas of the Westerbork Synthesis Radio Telescope have been equipped with 6- and 21-cm wave-length receivers based on cryogenically cooled parametric amplifiers and up-converters. Special care has been given to the design of the input network to achieve maximum sensitivity. An integrated feed launcher and preamplifier system are housed in a dewar at cryogenic temperatures. The receiver noise temperature at 21- and 6-cm wavelength are on the average 14 K and 20 K, respectively. At 21 cm, two systems have even yielded receiver noise temperature as low as 11 K. This paper concentrates particularly on the cooled section of the receiver system.

❑ Return to main document.