

DESIGN AND PERFORMANCE OF ANALOG FIBER OPTIC LINKS USED ON THE WHIPPLE 10 METER AIR CHERENKOV TELESCOPE

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A system of 120 analog fiber optic links has been installed on the Whipple 10-meter telescope. The links transmit the signal from the photomultipliers to the data acquisition electronics through a cable length of 94 meters. The system has been shown to accurately transmit fast analog pulses, reproducing the Cherenkov pulse shape with little dispersion compared to the same length of RG58 coaxial cable. Weight reduction, lightning protection and a crosstalk free system are other advantages of a fiber optic link. After one year of operation the performance of the system is discussed.