

## **Effect of Rain on Zenith Path Sky Noise Temperature at 29.9 GHz at Tropical Site Amritsar**

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Rain has long been recognized as the major and foremost factor that causes fading of wireless communication systems. The effect is dependent on the various factors such as the site (location of the communication link or satellite), frequency of the operation, and of the elevation. The present communication is an abstract from the long term microwave propagation measurement program being going at CRL, GNDU, Amritsar since 2001.

Here the results in the form of rain rate and corresponding variation in sky noise temperature have been presented. The corresponding values of the zenith path attenuation have also been derived.

The rain rate has been measured with tipping bucket type rain gauge having resolution 0.254 mm and corresponding sky noise temperature with zenith looking Dicke type radiometer at 29.9 GHz installed at CRL, GNDU, Amritsar, Punjab, India.