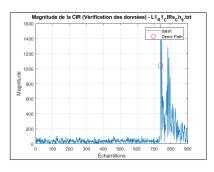
Comparative Analysis of Experimental and Theoretical UWB Channel Models

Camille Lanfredi

July 3, 2024

Experimental Results: Channel Impulse Response in Line Of Sight



Magnitude de la CIR (Vérification des données) - L1_R1_c(Rs_ch_b,txt

1600

1400

99

900

400

50

100

150

200

250

Figure: Channel Impulse Response in LOS

Figure: Channel Impulse Response in LOS for the last 700 samples

Experimental Results: Phase Response with Multipath Components in Line Of Sight

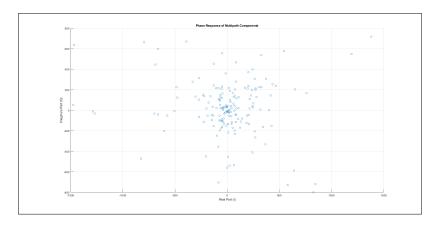


Figure: Phase response

Experimental Results: Phase Response with Multipath Components in Non Line Of Sight

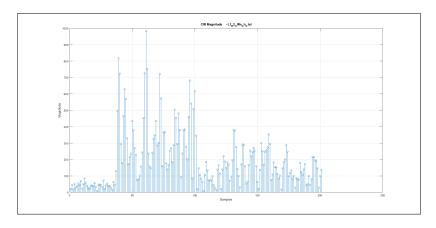


Figure: Channel Impulse Response in NLOS for the last 700 samples

Experimental Results: Phase Response with Multipath Components in Non Line Of Sight

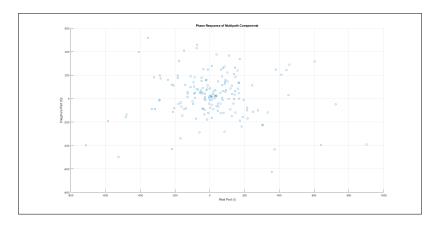


Figure: Phase response

Experimental Results: Comparison of the Phase Responses

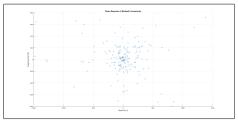


Figure: Phase response in Line Of Sight

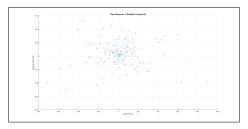


Figure: Phase response in Non Line Of Sight

Theoretical Results: Channel Impulse Response in Line Of Sight

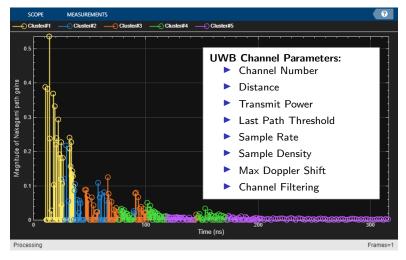


Figure: Theoretical CIR in LOS

Theoretical Results: Phase Response with Multipath Components in Line Of Sight

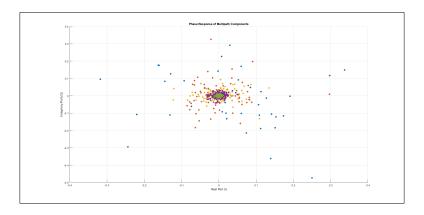


Figure: Phase response

Theoretical Results: Phase Response with Multipath Components in Non Line Of Sight

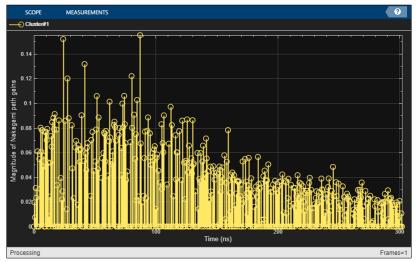


Figure: Theoretical Channel Impulse Response in NLOS

Theoretical Results: Phase Response with Multipath Components in Non Line Of Sight

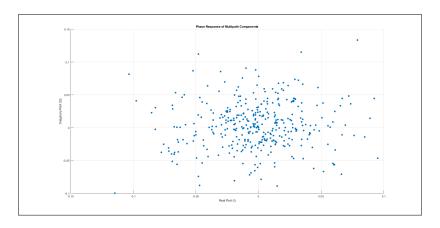


Figure: Phase response

Theoretical Results: Comparison of the Phase Responses

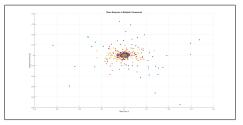


Figure: Phase response in Line Of Sight



Figure: Phase response in Non Line Of Sight