Scintillation SDF Analysis: Intensity & Phase (Weak) Weak L1 | S<sub>4</sub>: Th. 0.158, Exp. 0.169 Weak L2 |  $S_4$ : Th. 0.230, Exp. 0.247 Weak L5 | S<sub>4</sub>: Th. 0.245, Exp. 0.263 20 0 -20 -20 Intensity SDF [dB] Intensity SDF [dB] Intensity SDF [dB] -40 -40 -40 -60 -60 -60 -80 -80 -80 -100 -100 -100 -120 Post-Propagation SDF Post-Propagation SDF Post-Propagation SDF -120 Theoretical Model Theoretical Model Theoretical Model -120 -140 -140 10<sup>-2</sup> 10<sup>0</sup> 10<sup>-2</sup>  $10^{0}$ 10<sup>2</sup> 10<sup>-2</sup> 10<sup>0</sup> 10<sup>2</sup> 10<sup>2</sup> Doppler Frequency (Hz) Doppler Frequency (Hz) Doppler Frequency (Hz) Weak L1 Phase SDF Weak L2 Phase SDF Weak L5 Phase SDF 50 50 50 Pre-Propagation SDF Pre-Propagation SDF Pre-Propagation SDF Post-Propagation SDF Post-Propagation SDF Post-Propagation SDF **Theoretical Model** Theoretical Model Theoretical Model 0 0 0 Phase SDF [dB] Phase SDF [dB] Phase SDF [dB] -50 -50 -50 -100 -100 -100 -150 -150 -150 10<sup>-2</sup> 10<sup>-2</sup> 10<sup>0</sup> 10<sup>2</sup> 10<sup>-2</sup> 10<sup>0</sup> 10<sup>2</sup> 10<sup>0</sup> 10<sup>2</sup>

Doppler Frequency (Hz)

Doppler Frequency (Hz)

Doppler Frequency (Hz)