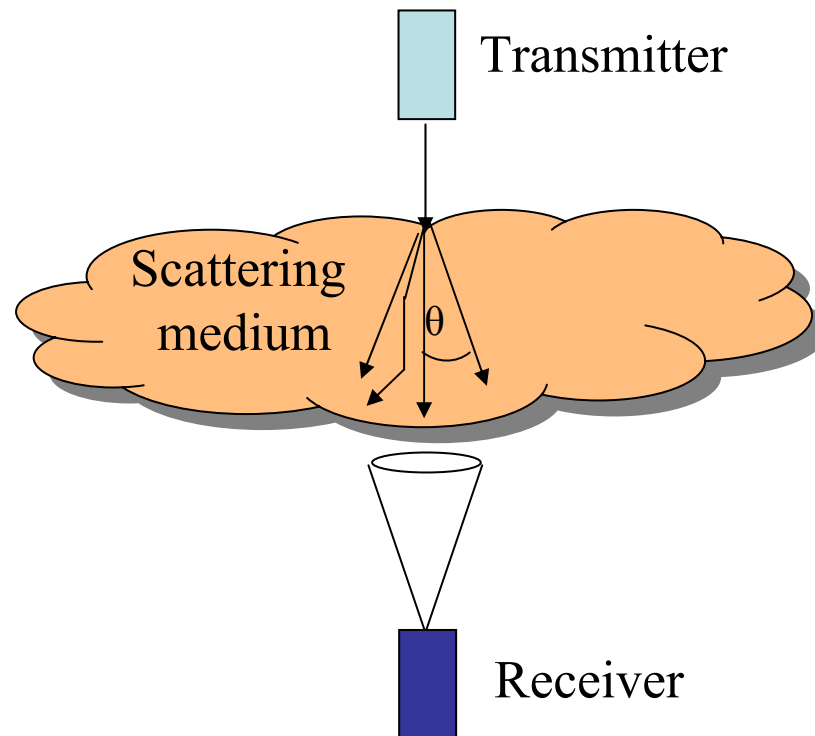


Battlefield Obscurant Scattering Modeling Objectives

- Find a model correlating distribution of scattering (temporal dispersion, angular dispersion) vs. scattering angle at exit plane with LoS attenuation, such that an appropriate receiver can be designed



θ : Scattering angle at exit plane

- Optical links in battlefield
 - Optical tags
 - Reconnaissance, surveillance, and target recognition systems
 - Free-space optical communication links



Target recognition



RSTA vehicle



FSO links



FSO links



- Obscurants in Battlefield
 - Smoke: from military smoke generators
 - Examples: Diesel fog, Fog oil, HE smoke, HC obscurant,
 - Dust: from ground vehicles, helicopter operations,
 - Blowing sand
 - Rain
 - Snow
 - Clouds (water cloud / non-water cloud = dust cloud)
 - Fog

