

Atmospheric state:

- wind speed: u,v-component;
- temperature;
- pressure;
- aerosol optical parameters;
- surface albedo

RTM
libRadtran

Solar background
radiation

Spaceborne
DWL
simulation
system

$N_A \quad N_B \quad N_{S,A} \quad N_{S,B}$

$\sigma_{R_{ATM}}$

SNR_{Ray}

The validation of Eq. (A3)