LIST OF SYMBOLS

Symbol	Unit	Description
Inherent Optical Properties		
$a(\lambda)$	m^{-1}	Absorption coefficient
$a_w(\lambda)$	m^{-1}	Absorption coefficient of pure seawater
$a_y(\lambda)$	m^{-1}	Absorption coefficient of yellow substance
$a_{nap}(\lambda)$	m^{-1}	Absorption coefficient of non-chlorophyllous particles
$a_{ph}(\lambda)$	m^{-1}	Absorption coefficient of phytoplankton
$a_p(\lambda)$	m^{-1}	Absorption coefficient of particles
$b(\lambda)$	m^{-1}	Scattering coefficient
$b_w(\lambda)$	m^{-1}	Scattering coefficient of pure seawater
$b_p(\lambda)$	m^{-1}	Scattering coefficient of particles
$b_b(\lambda)$	m^{-1}	Back scattering coefficient
$\tilde{b}_b(\lambda)$	%	Back scattering probability, defined here as ratio of back scattering coefficient to total scattering coefficient
$c(\lambda)$	m^{-1}	Beam attenuation coefficient
$\omega_0(\lambda)$	1	Single scattering albedo
$\beta(\theta,\lambda)$	$m^{-1}\ sr^{-1}$	Volume scattering function
$\tilde{\beta}(\theta,\lambda)$	sr^{-1}	Scattering phase function
Radiometric Quantities		
$L(\lambda,\theta_s,\theta_v,\phi_v)$	$W\ m^{-2}\ sr^{-1}$	radiance
Apparent Optical Properties		
$E(\lambda,\theta_s)$	$W\ m^{-2}$	Irradiance
$E_d(\lambda)$	$W\ m^{-2}$	Downward irradiance
$E_u(\lambda)$	$W\ m^{-2}$	Upward Irradiance
$R_{RS}(\lambda,\theta_s,\theta_v,\phi_v)$	sr^{-1}	Remote sensing reflectance
$R(\lambda,\theta_s)$	1	Irradiance reflectance
$Q(\lambda,\theta_s,\theta_v,\phi_v)$	sr	Factor describing the bidirectional character of the light field
Atmosphere and aerosol properties		
$\tau_r(\lambda)$	1	Optical thickness due to Rayleigh scattering

$\tau_a(\lambda)$	1	Optical properties due to aerosol scattering and absorption
RH	percents	Relative humidity
Geophysical properties		
Chl	mg m^{-3}	Pigment concentration, defined here as sum of chlorophyll and phaeopigment concentration
SPM	g m^{-3}	Suspended matter concentration
CDOM	m^{-1}	Absorption coefficient of Coloured dissolved organic matter
Geometry		
θ_s	degrees	Sun zenith angle
θ_v	degrees	Observation zenith angle
ϕ_v	degrees	Observation azimuth angle
λ	nm	wavelength
Others		
p	hPa	Pressure at sea level
w	m s^{-1}	Wind speed
f	1	Proportionality factor
r	1	Pearson's correlation coefficient
s_c	1	Sigmoidal function
c_t	1	Temperature constant in sigmoidal function