

Shortwave broadband albedo

Primary surface type evaluation

Snow line altitude SLA

$\alpha < 0.25$

$\alpha > 0.55$

$0.25 > \alpha > 0.55$

Critical albedo α_{crit}

Outlier suppression

$$\alpha_{corr} = \alpha_i - (SLA - z_i) \times SLA_{const}$$

Secondary surface type evaluation

$\alpha_{corr} < \alpha_{crit}$

$\alpha_{corr} > \alpha_{crit}$

ICE

SNOW

$z_i < SLA - r_{crit}$

$z_i > SLA + r_{crit}$

YES

NO

YES

ICE

SNOW

Probability test to eliminate extreme outliers