

### Specific comments

1. I understand that the present analysis applied to clear-sky conditions. Write it in the abstract clearly.

2. P4623 L11

Change “Surface Energy Balance System (SEBS)” to “SEBS”.

3. P4623 L25

The left hand side of Equation (1),

$$+ L_{\downarrow}(x, y) - \varepsilon_0(x, y)\sigma T_{sfc}^4(x, y)$$

is not correct but

$$+ \varepsilon_0(x, y)\{L_{\downarrow}(x, y) - \sigma T_{sfc}^4(x, y)\}$$

is correct according to the Kirchhoff's law.

4. P4624 L18

“, and the mean temperature,”

is changed the following,

“, and the mean temperature difference between the surface and the air,”

5. P4624 L23

“shear stress,  $\rho$  is the density of air,”

is changed the following,

“shear stress,  $C_p$  is specific heat of air at constant pressure,  $\rho$  is the density of air,”

6. P4625 L7

“the potential virtual temperature”

is changed the following,

“the virtual potential temperature”

7. P4625 L14

Show the ASTER observation time.

8. P4625 L15

How long the averaging time each plot of ground measurements in the Figure 4?

A few tens of minutes, one hour or other?

9. P4625 L22

Explain the characteristics of “different months”.

For example, 3 May is pre monsoon period (dry season, ground surface is dry condition)

and 4 June is monsoon period (wet season, ground surface is wet condition).

10. P4626 L10

The results are better than what? Show references or explanation.

Explain the improvement on albedo and surface temperature. Is it sensor resolution?

11. P4626 L19

Latent heat flux is not parameterized but residual of heat balance equation (equation (7)).

Authors should write the following, latent heat flux is in good agreement with field measurement because of adequate parameterization of  $R_n$ ,  $G_0$  and  $H$ .

12. P4625 L13 and P4627 L3

“4 scenes of ASTER data” contradicts “three ASTER images”.

13. Fig. 2

Explain the following parameters,

“ $P_v$ ” and “ $k_B^{-1}$ ”.

“ $T_a$ ” is changed to “ $\theta_a$ ”.

14. Fig. 3

If authors aim to compare the different months, rearrange the figures to correspond the same area. The region of 3 May is a little bit different from that of 4 June. It is easy to understand that the corresponded area is enclosed with a frame. It is a little bit difficult to compare the heat balance features of different months because the flux scale is different from each other.

15. Fig. 4

Latent heat flux is calculated from ( $R_n$ ,  $G_0$  and  $H$ ). So that  $A'_{rou}$  should be plotted in the figure of sensible heat flux if data is available.