

Hess-2009-226

Comments on 'The two-layer surface energy balance parameterization scheme (TSEBPS) for estimation of land surface heat fluxes' by X. Xin and Q. Liu

General comments

The manuscript is a valuable contribution to the literature of surface energy balance. Some general observations for improvements are listed below.

1. In all four case studies, the net radiation, soil heat fluxes should be presented in order to appreciate the magnitudes of the sensible and latent heat fluxes.
2. The calculation of $T_{0,wet}$ in Eq. 24 is not explained but is necessary.
3. The uncertainties of the measurements are mentioned in several places, but are not explicitly indicated for the different measurement methods for the four sites. This needs to be elaborated further site by site.
4. Data selection should be described in more detail - e.g. in Table 2 for NW3, 10 min data in 23 days would result in 3312 data points and not 230. Why and which data points are excluded?
5. It is suggested to have a copy editing of the manuscript because in several places some guesswork is needed to fully understand the meaning of some sentences. More specific comments are given below.

Specific comments:

1. P3L7: Su et al., 2001 is missing in reference list.
2. P9L5: 'SEBS (2002)' should be (->) 'SEBS (Su, 2002)'
3. P10L8: 'saturate vapor pressure' -> 'saturation vapor pressure'
4. P10L9: 'pychrome constant' -> 'psychrometric constant'
5. P11L7: 'an interpolate method' -> 'an interpolation method'
6. P25L28: A model study of kB^{-1}_{-H} -> kB^{-1}_H
7. P26L15: 'Verhoef, W.' -> 'Verhoef, A.'
8. P37: wind information would be helpful also and should be added to the plots.