

Interactive comment on “Improvement of surface albedo parameterization within a regional climate model (RegCM3)” by Y. Bao and S. Lü

Anonymous Referee #4

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Reviewer's comments to “Improvement of surface albedo parameterization within a regional climate model (RegCM3)” by Bao et al.

Land surface albedo controls the energy budget, and therefore, the parameterization scheme of land surface albedo is essential for the climate model. This paper proposed a parameterization scheme by using satellite remote sensing data; it is a great challenge and interesting research topic. By developing a parameterization scheme of land surface albedo, result analysis and discussions, it is evident that this parameterization scheme is feasible and the simulated air temperature and energy budget have been improved compared to the original scheme. I suggest accepting this paper after a minor revision.

The specific comments

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The English of the manuscript needs major revisions. It is sometimes very hard to understanding the ideas of the authors

Pg1652Ln2-6: the statement is too long; it is hard to capture the meaning of the authors after reading this sentence.

Pg1652Ln17: change “noon time” to “noon”.

Pg1654ln13, Pg1656Ln9, and Pg1656Ln17: change “albedos” to “albedo”.

Pg1656Ln2-4: the objective and tasks of this research are not well presented.

Pg1658Ln12-13: why do not you use the real ground data to validate your results?

Pg1660Ln18: The references from Zhang et al., 2004; Hu et al., 1999 and Bao et al., 2008 are not available in the references list

Pg1672-1673, Pg1675-1676: the figure are too small, the number in the figures are not readable.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 6, 1651, 2009.