

In this study, Camici and coauthors present a simplified conceptual discharge model that uses precipitation, soil moisture, and temperature to model quick runoff and GRACE-derived storage changes to model slow runoff. Although the rationale behind the work is solid, though not particularly novel (<https://www.sciencedirect.com/science/article/pii/S0012821X08006766>, https://link.springer.com/chapter/10.1007/978-3-030-02197-9_1), the results are only good in the basin it's calibrated over, with little potential for transfer. The coauthors attempt to validate their model's utility by expressing its ease of use, computational efficiency, and limited input data requirements, but it is far from the only model to check these boxes. Without comparison to some more commonly used models, say VIC, SWAT, Sacramento, or HEC-HMS, it's hard to convince people that they should use the presented STREAM model. I strongly encourage the coauthors to compare their results with other simplified conceptual discharge models to validate their model's utility.

Line 278: The rain/snow differentiation model should be expanded on within the study. Rain/snow differentiation based on temperature and elevation is passably good, but at a large grid size like 25 x 25 km, the topographic complexity of higher elevations is lost. A differentiation scheme like that used in IMERG may be preferred, but isn't necessary. Still, this should be acknowledged, however briefly.

345-348: Using a calibration tool would be preferable to manually adjusting to maximize Kling-Gupta. Perhaps one was used, but it's not specified. Also, does paragraph 5.1 relate to calibration, or is it paragraph 5.4?

Section 5.1: "1. Input data collection" is unnecessary to include.

Line 414-415: It is not clear to me what "to get to the right answers for the right reasons" means in this context and it's tedious to hunt it down in the cited paper.

Line 500-501: I would encourage you to include a precipitation map as a figure to illustrate your point.

Line 595: By the author's own admission (Lines 486-490), the model may not be suitable to reproduce discharge in basins not calibrated over. This should be changed to something less absolute. "Under some circumstances, the STREAM model can be used to estimate discharge in basins not calibrated over, especially those without upstream dams with comparable size and land cover." Or something similar.