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Hydrology and Earth System Sciences
Discussions

Interactive comment on "A General Analytical Model for Head Response to Oscillatory Pumping in Unconfined Aquifers: Consider the Effects of Delayed Gravity Drainage and Initial Condition" *by* Ching-Sheng Huang et al.

Anonymous Referee #1

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This paper represents a nice advancement of mathematical modeling of oscillatory pumping test.

I have the following comments on the paper:

1. Provide some more background on Weber transform and its application in hydrology, including, but not limited to its advantages and disadvantages.

2. A great portion of the mathematical details may be moved into supplementary material, so the authors can concentrate on discussing the hydrogeological features of the

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Discussion paper

problem.

3. The mathematical modeling appears to be robust. The English is good too.

4. Some associated literature using the similar approaches can be seen in Dr. Xiuyu Liang's recent publications (only one of them is cited here).

The paper can be published after moderate revision.

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