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Hydrology and Earth System Sciences Discussions

Interactive comment on "A dynamic rating curve approach to indirect discharge measurement" *by* F. Dottori et al.

F. Dottori et al.

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This author comment contains the replies missing from the previous comment. We apologize for the oversight.

Reviewer: *Is the rising limb really 24 hours?? Looks more like 12 .. Is the time right? days? Here and in the next few figures.*
Authors: We would like to thank the Reviewer for the accurate analysis, but we have checked and the rising limb of the equation lasts 24 hours. The inflow generating mechanism inevitably generates a flood wave with an imposed period of 24 hours. Nonetheless, the reviewer is right that one has the impression that the flood wave has a shorter period. This is mainly due to the fact that the equation generating the

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transient is raised to the power 16. This generate waves that grow infinitesimally from the initial steady state value for several hours, which obviously reduces the duration of the actual rising limb time. Anyway, for a better understanding, although the figures are formally correct we will plot the flood waves vs hours instead of days and we will add at the beginning the shape of the generated flood waves with a comment on the time needed to peak.

Reviewer: *The rest are minor textual adjustments appearing in the commented pdf.*
Authors: We thank the reviewer for the correction which will be taken into account in therevised manuscript.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 6, 859, 2009.