

*“Natural laws of precipitation, great cycle,
infiltration overland and groundwater runoff
with a new formulas”*

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Response for anonymous referee #2

We carefully prepared answers for your suggestions. Finally, we found in the literature, in the book, correct spelling of the name of the great Russian hydrologist Lvovitch, (Global Water resources and their future p.2).

Literature and references will be displayed at the end in revised paper, as well as the literature of the science works and research papers which are not in russian.

These formulas are not limited with time period, time is not important for these formulas. Examples for every parameter are proved everywhere around us, in many ways. The only lack of occurrence is for the process of sublimation, which can limit the measurement of evaporation (in winter period), and thus the accuracy of the measured results. Also, these formulas need to show a connection of Lvovitch methods and thereby to short the way of obtaining basic elements of the water cycle. Mathematical form is given not as empirical evidence, but as evidence that confirms the practical results. The formula represents the ratio of infiltration, precipitation and evaporation and can be applied at the micro and macro systems where we have the water balance measures data. The information listed in the study are old and the new one will give precise and accurate results. The source for the new data is the Republic Hydrometeorological Service of Serbia and that will prove the obviousness of the formula.

All formulas are proven with function graphics, that are cart-diagrams. On the cart-diagrams are given basic coefficients of water balance. Mathematical form of impermeable and permeable terrains is going to be associated with current definition in hydrological mean, in the revised version, so that will give a complete proof. With the help of the quadratic equation associated with the definition of soil we shall give a complete proof. At the end, the formulas are proven, practical and mathematically. Cart-diagram was taken to have area 1 and all sides are long 1, too. The total amount of water balance is 1, also, and the cart-diagram is only model where the water balance elements are presented because mathematical form is connected with practical application.