

***Interactive comment on “An opportunity of
application of excess factor in hydrology” by
V. Kovalenko et al.***

E. Shevnina

eshevnina@gmail.com

Received and published: 30 April 2013

Authors proposed to use excess factor (kurtosis) as an alternative to beta-criteria (relative intensity of multiplicative noises). A value of the beta-criteria is used to estimate the “stability” of the statistical moments, which are the solution of the system (4). The “stability” of the solutions for equations (4) means that moments come to infinity. Moreover, the higher order moment ($n=1, 2, 3, 4$) requires less value of the beta-criteria to fall to “instability”: “stability is lost by, consistently, fourth ($\beta > 0.5$), third ($\beta > 0.67$) ... (p.13638)”. Then the kurtosis (excess factor) which depends on the fourth moment ($n=4$) comes to “infinite”-value soon than the lower order moments. How we can use excess factor for analysis of the “stability” of the model (4) solutions for $n=1,2,3$?

C7193

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 9, 13635, 2012.