

Interactive comment on “Physical models for class-room teaching in hydrology” by A. Rodhe

Anonymous Referee #1

Received and published: 10 May 2012

General comments

The objective of the manuscript is to describe physical models that can be used as teaching support in hydrology courses to illustrate saturated and unsaturated groundwater flow, run off generation or particle tracking. Simple models are presented which are likely to help students understanding basic hydrological processes. As suggested in the specific comments however, some explanations/definitions can be confusing and should be reformulated. The conclusion should also better follow from arguments developed in the body of the manuscript.

Specific comments

Page 4139 line 10: the explanation might be confusing. When the sponge stands up, some pores are at a higher level than when lying but lack the necessary negative

C1388

pressure to retain water.

Page 4142 line 2: the storage coefficient, also called storativity, is the volume of water released from an aquifer per unit surface area per unit decrease in the hydraulic head. It is equal to the specific yield only for unconfined aquifers.

Pages 4145 and 4146, sections 3.1.5 and 3.1.6: good experimental setup to illustrate the concept of recharge and discharge areas.

Page 4151 line 20: the problem of misconceptions of the public about water occurrences is different from the problem of effective teaching of hydrology which is the subject of the manuscript.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 9, 4135, 2012.