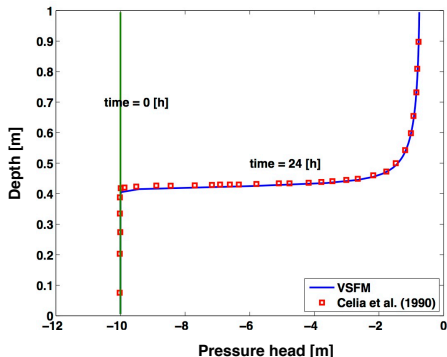


## Infiltration in a very dry soil

- ▶ 1 [m] deep soil column (Celia et al. (1990))<sup>1</sup>.
- ▶ Soils:  $K_{sat} = 0.00922$  [cm s<sup>-1</sup>];
  - ▶  $\theta_r = 0.102$   $\theta_s = 0.368$   $\alpha = 0.0335$  [cm<sup>-1</sup>]
- ▶ Conditions
  - ▶ IC :  $P(z, t = 0) = -10$ [m]
  - ▶ BC:  $P(z = 0, t) = -0.75$ [m]
- ▶ Model captures the sharp wetting profile at  $t = 24$  [hr].



<sup>1</sup>Celia, M. A., E. T. Bouloutas, and R. L. Zarba (1990), A general mass-conservative numerical solution for the unsaturated flow equation, *Water Resour. Res.*, 26(7), 1483-1496, doi:10.1029/WR026i007p01483