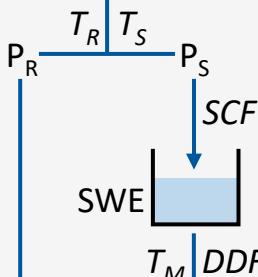


Model input

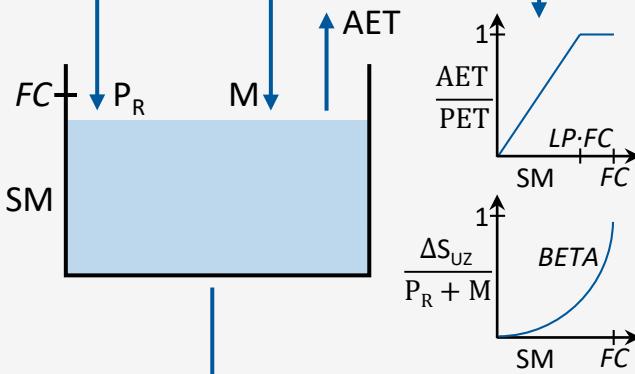
P T

PET

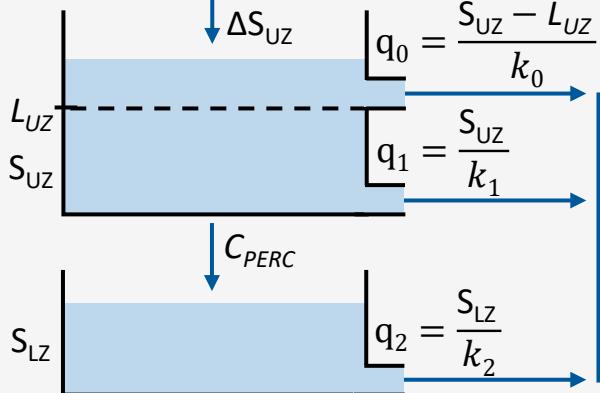
Snow routine



Soil moisture routine



Response routine



Model parameters and variables

P – Precipitation

T – Temperature

PET – Potential evapotranspiration

T_R – Threshold temperature for rainfall

T_S – Threshold temperature for snowfall

P_R – Rainfall

P_S – Snowfall

SCF – Snow correction factor

SWE – Snow water equivalent

T_M – Threshold temperature for snowmelt

DDF – Degree day factor

FC – Maximum soil moisture storage

SM – Soil moisture

M – Snowmelt

AET – Actual evapotranspiration

LP – Limit for PET

BETA – Nonlinearity parameter

S_{UZ} – Upper storage zone

L_{UZ} – Threshold storage state

S_{LZ} – Lower storage zone

C_{PERC} – Constant percolation rate

q_0 – very fast runoff

q_1 – fast runoff

q_2 – slow runoff

k_0 – storage coefficient for very fast response

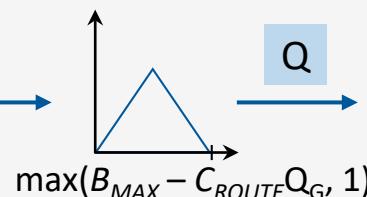
k_1 – storage coefficient for fast response

k_2 – storage coefficient for slow response

B_{MAX} – Maximum base at low flows

C_{ROUTE} – Free scaling parameter

Q – Runoff



Routing routine