

Input data

- Precipitation
- Potential ET/ Actual ET

(90m and 12.5m)
Topographical and
edaphic information

Hydrological and
landslide
parameters

Soil moisture
downscaling

coarse → fine

iHydroSlide3D v1.0

Hydrological
model

Landslide
model

Coordinate transformation

Random procedure
Parallel technique

- (i) FS reaches FS_{min} ?
- (ii) A_L reaches A_{Lmax} ?
- (iii) V_L reaches V_{Lmax} ?

YES

NO

Output

Hydrological components:

- (i) soil moisture
- (ii) streamflow
- ⋮

Landslide susceptibility:

- (i) FS_{min}
- (ii) PF
- (iii) risk zones

Landslide hazard:

- (i) A_{Lmax}
- (ii) V_{Lmax}

Validation

Discharge

ROC plot

%LR_{class}

Fitted equation