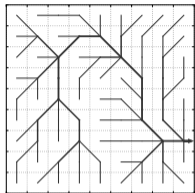
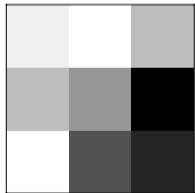


## Inputs

High-resolution river network

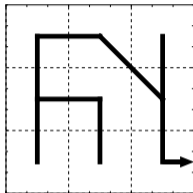


Grid specific runoff



## Processing

Upscaled river network



Kinematic wave solver

$$Q(x_{j+1}, t_{i+1}) = C_1 Q(x_j, t_{i+1}) + C_2 Q(x_j, t_i) + C_3 Q(x_{j+1}, t_i)$$

## Outputs

Streamflow at every reach

