

1st GEM Meeting

05 march 2014
METIS – UPMC

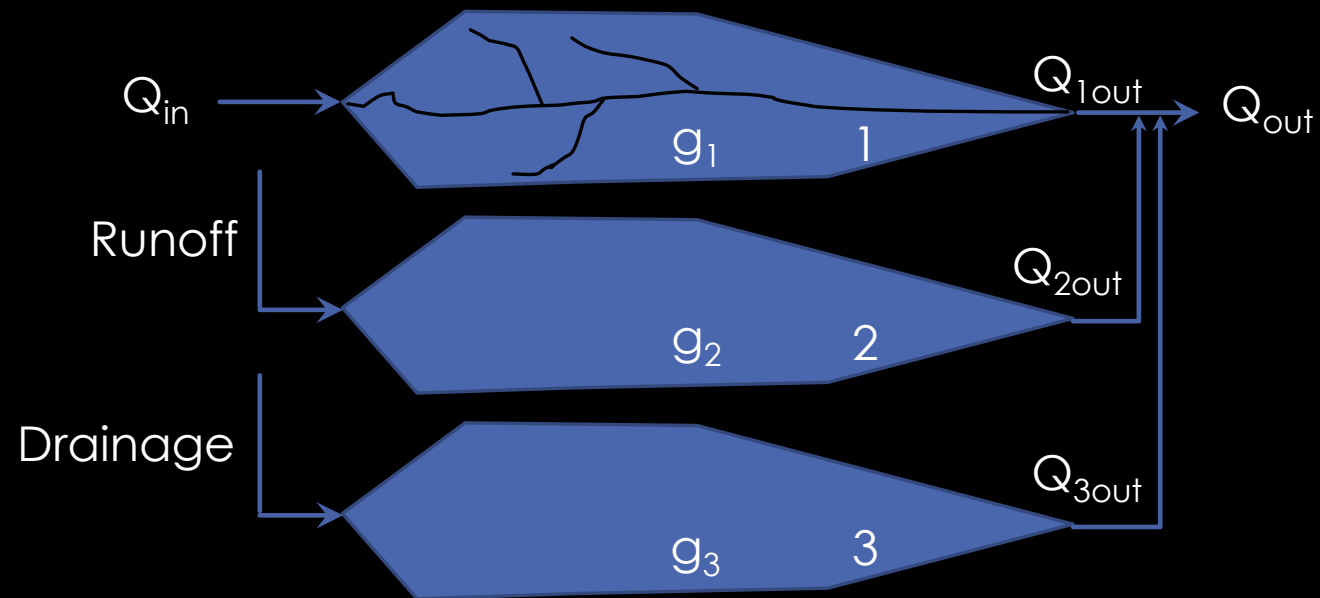
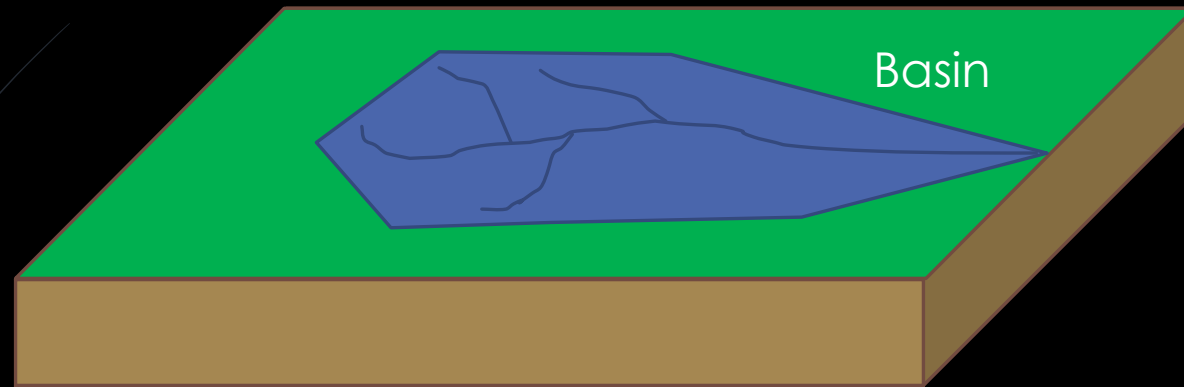


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Routing in ORCHIDEE

Topoindex



1. Stream reservoir
2. Fast reservoir
3. Slow reservoir



New high-resolution data

- Hidro1k: 1 km resolution (lack of data in Australia)
- HydroSHEDS: 1 km resolution (no data above 60°N)
- Wu et al. 2012: mix of HydroSHEDS and Hidro1k data, at 1/16° resolution (topography, drainage area, flow direction, and flow distance)
- WHYMAP (geology), Hartmann & Moosdorf (2012) (lithology), Gleeson et al. (2011) (permeability)



New high-resolution data

- New high-resolution routing.nc
- New velocity constants for the three reservoirs that depend on the geology properties
- Compare ORCHIDEE's results to large-scale total water storage anomalies from GRACE spatial gravimetry