

Drainage systems (information summarised or modified from the book Arc Hydro GIS for water resources edited by D.R. Maidment)

# Drainage systems

- Precipitation falls on the land surface
- -soaks into soils, evaporates, or runs off the land surface into streams
- Flow of water (i.e. direction and network) depends on the shape of the landscape

## Drainage area revealed from DEM

- How to calculate?
- How to display?
- Any technical problem?
- How to analyse?

## Determination of the direction of flow

- How to calculate?
- How to display?
- Any technical problem?
- How to analyse?

Path of raindrop: as stream, river and to the ocean

- How to calculate?
- How to display?
- Any technical problem?
- How to analyse?

## Flow direction in the 8-direction pour point model

- How to calculate?
- How to display?
- Any technical problem?
- How to analyse?

## Slope calculation

- How to calculate?
- How to display?
- Any technical problem?
- How to analyse?
- Any other algorithm?