Short course on GEOSTATISTICS

Why Geostatistics

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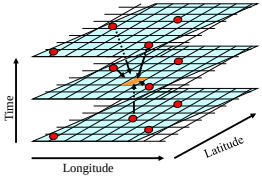

Background

- **Geostatistics** originated from mining and petroleum industries
- Started by Daniel Krige 1950s & further developed by Georges Matheron in 1960s.
- Extended to many disciplines: earth sciences, e.g., hydrogeology, hydrology, meteorology, oceanography, geochemistry, geography, soil sciences, forestry, landscape ecology.
- Generally it is a branch of statistical sciences that studies **spatial/temporal** phenomena & capitalizes on **spatial relationships** to model possible values of variable(s) at unobserved, unsampled locations (Caers, 2005).

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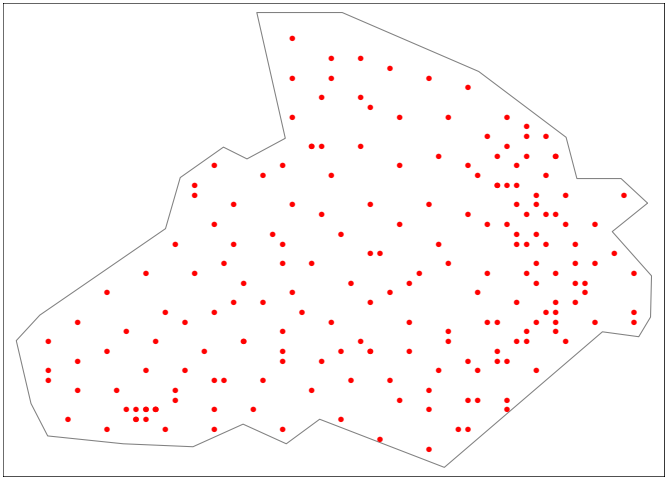

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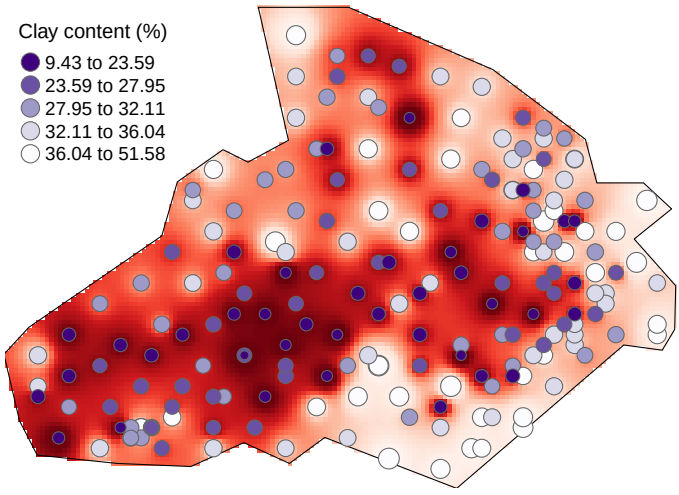
- then later estimate/predict, in spatial sense.



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- **Interpretation** – The variogram & estimates provide a basis for interpreting the causes of spatial variation & for identifying some of the controlling factors & processes.

Course reference material I

Caers, J. (2005). *Petroleum geostatistics*. Society of Petroleum Engineers Richardson.