

Why are the reading selections short?

Understanding technical written material requires:

- participation, asking and answering questions
- rereading some section, perhaps more than once
- reading supporting material
- contemplating the material

For this week's reading, class members had many similar questions that were answered in the reading or supporting material earlier in the book. However, they were posed as questions in the submitted notes. We need to change our approach to make this seminar effective. Let's start by having class members strive to answer the questions today and expand on those answers over the next few weeks.

What is the fundamental action taken to generate the statistics and measures used to evaluate potential new data?

- Everyone seems to understand that we incorporate hypothetical observations.
- How do we do that?
- Do their values matter? Why or why not?
- Do you calibrate the model with them?
- What if you want to know the value of more than one potential new data item?
- What in general do you do with the results?
- How do these analyses relate to the field work?
- Do you do this at every node?
- What do we glean from figure 4.4 page 64?
- Do we need to evaluate all of the potential new data in every alternative model?
- What if the data is not a dependent variable (eg geologic framework, such as hydrologic unit thickness or geometry?)
- Is this process intended to lead to more alternative models?

What are:

- $dss$
- $css$
- $pcc$
- $pss$
- $ppr$
- $opr$
- leverage
- influence
- How is it possible to compare the  $dss$  of a potential observation to the  $css$  of existing observations?
- If there are numerous observations (i.e. tens of thousands) with small  $dss$  values that add to a large  $css$  value, and a potential observation has a small  $dss$  value relative to the large  $css$  value, could it still provide important information?
- Is a leverage statistic used to determine whether new observations will reduce parameter correlations?
- Are there statistics to decipher the parameter for which a potential new observation with high leverage is most important?