The Framework

- Was it useful?
- Were specification of measures easy?
- Were the specifications complete?
- Did you learn anything about the measure?

Interactive Session

- Good things?
- Problems?
- Suggestions?

Part Two

Property-Based Software Engineering Measurement

Lionel Briand, Sandro Morasca, Victor Basili
IEEE TOSE Jan 96

Size

- Is a size measure always going to be proportional to the cardinality of E?

Length

- PL1 – Nonnegativity
- PL2 – Null value
- PL3 – Nonincreasing monotonicity
- PL4 – Nondecreasing monotonicity
- PL5 – Disjoint modules

What is an example of PL4?
How can we model nesting depth?

Is length proportional to longest, noncyclical path?

Length

- Can you think of a length measure other than those mentioned in the paper? (nesting depth and DIT (depth of inheritance tree)).

- “Properties L1 through L5 hold when applying the admissible transformation of the ratio scale. Therefore, there is no contradiction between our concept of length and the definition of length measures on a ratio scale.”

- What does this mean?

Complexity

- PC1 – nonnegativity
- PC2 – Null value
- PC3 – Symmetry
- PC4 – Module monotonicity
- PC5 – Disjoint Module Additivity

Complexity Examples

- McCabe’s cyclomatic number
Cohesion

- PC1 – nonnegativity and normalization
- PC2 – null value
- PC3 – monotonicity
- PC4 – cohesive modules

Cohesion examples

Coupling

- PC1 – nonnegativity
- PC2 – Null value
- PC3 – monotonicity
- PC4 – Merging of modules
- PC5 – Disjoint Module Additivity

Coupling examples

Measurement Theory

- How does this theory match measurement theory?