**Paper Comparison: Multiple Trees**

- **focus**
- **context**

**Accordion Drawing**

- rubber-sheet navigation
  - stretch out part of surface, the rest squishes
  - borders nailed down
- **Focus+Context technique**
  - integrated overview, details
  - old idea
  - [Ghali et al 03]
  - [Robertson et al 91]
- guaranteed visibility
  - marks always visible
  - important for scalability
  - new idea
  - [Munzner et al 03]

**Guaranteed Visibility Challenges**

- hard with larger datasets
- reasons a mark could be invisible
  - outside the window
  - underneath other marks
- AD solution: constrained navigation
- AD solution: avoid 3D
- – smaller than a pixel
  - AD solution: smart culling

**Matching Leaf Nodes**

- rayfinned fish
- salamander
- frog
- mammal
- bird
- crocodile
- lizard
- snake
- turtle
- lungfish

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**Future Goal: 10M node Tree of Life**


**Structured Comparison**

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**Common Dataset Size Today**


**Guaranteed Visibility Challenges**

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**Guaranteed Visibility: Small Items**

- Naïve culling may not draw all marked items
  - No guaranteed visibility

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Rayfinned fish
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Matching Interior Nodes

Rayfinned fish
- salamander
- frog
- mammal
- bird
- crocodile
- lizard
- snake
- turtle
- lungfish

Similarity Score: \( S(m,n) \)

\[
S(m,n) = \frac{|E,F|}{|E| \cup |F|} = \frac{2}{3}
\]

Best Corresponding Node

\( \text{BCN}(m) = n \)

Marking Structural Differences

Nodes for which \( S(v, \text{BCN}(v)) = 1 \)
- Matches intuition

TreeJuxtaposer
- video, software from olduvai.sourceforge.net/tj