

# Parallel Coordinate Plots for Visualisation of Longitudinal Survey Data

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# Longitudinal visualisation

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  - Direct visualisation
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  - Integration with ASSDA website
- Data contains:
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  - Multiple waves
- Pilot project challenge:
  - How to visualise this data usefully?

# Mapping data to space

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- Graphs map variables *directly* to 2D/3D space

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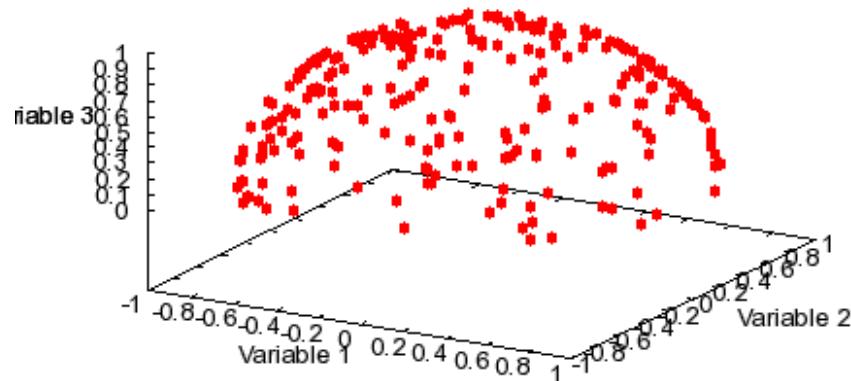
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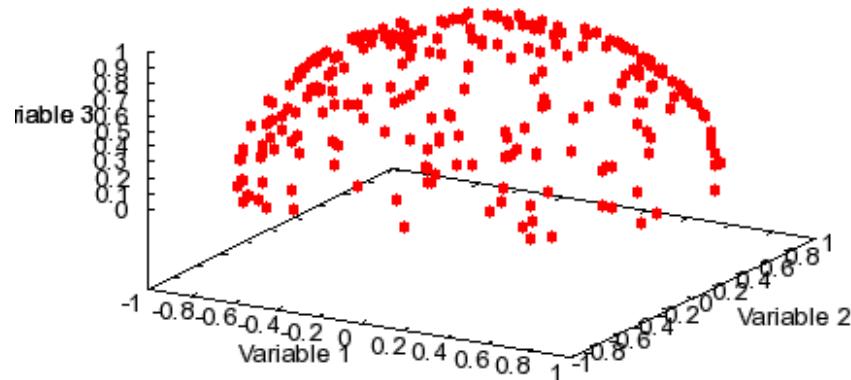
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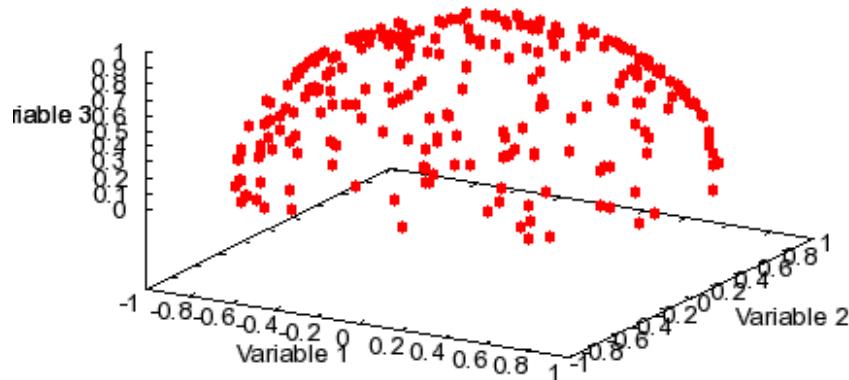
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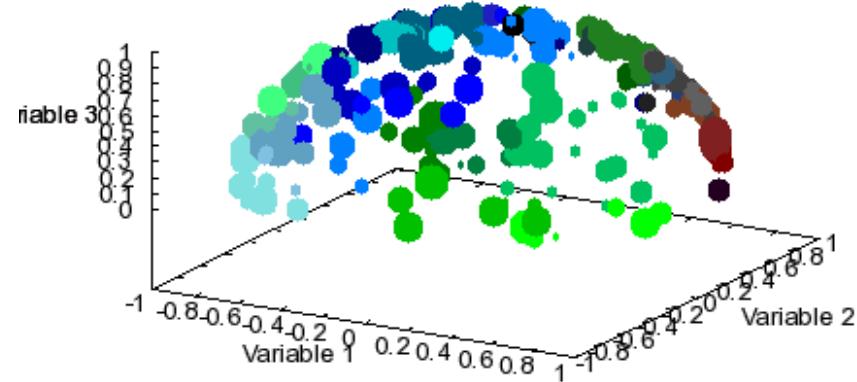
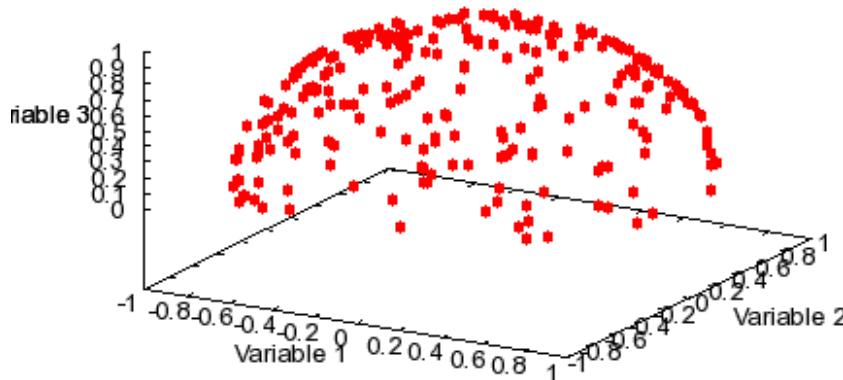
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⇒ Parallel Coordinate Plots ⇐

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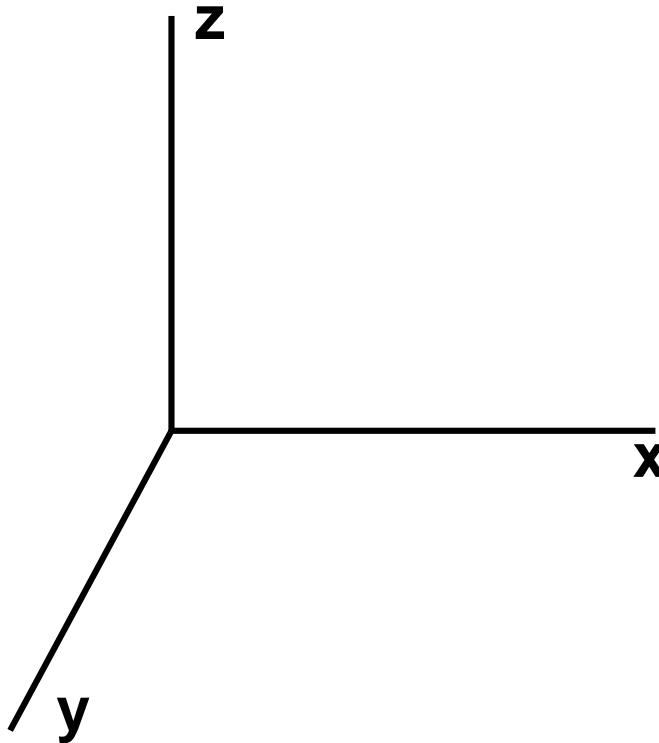
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- Dimensions (axes) are parallel (not orthogonal)

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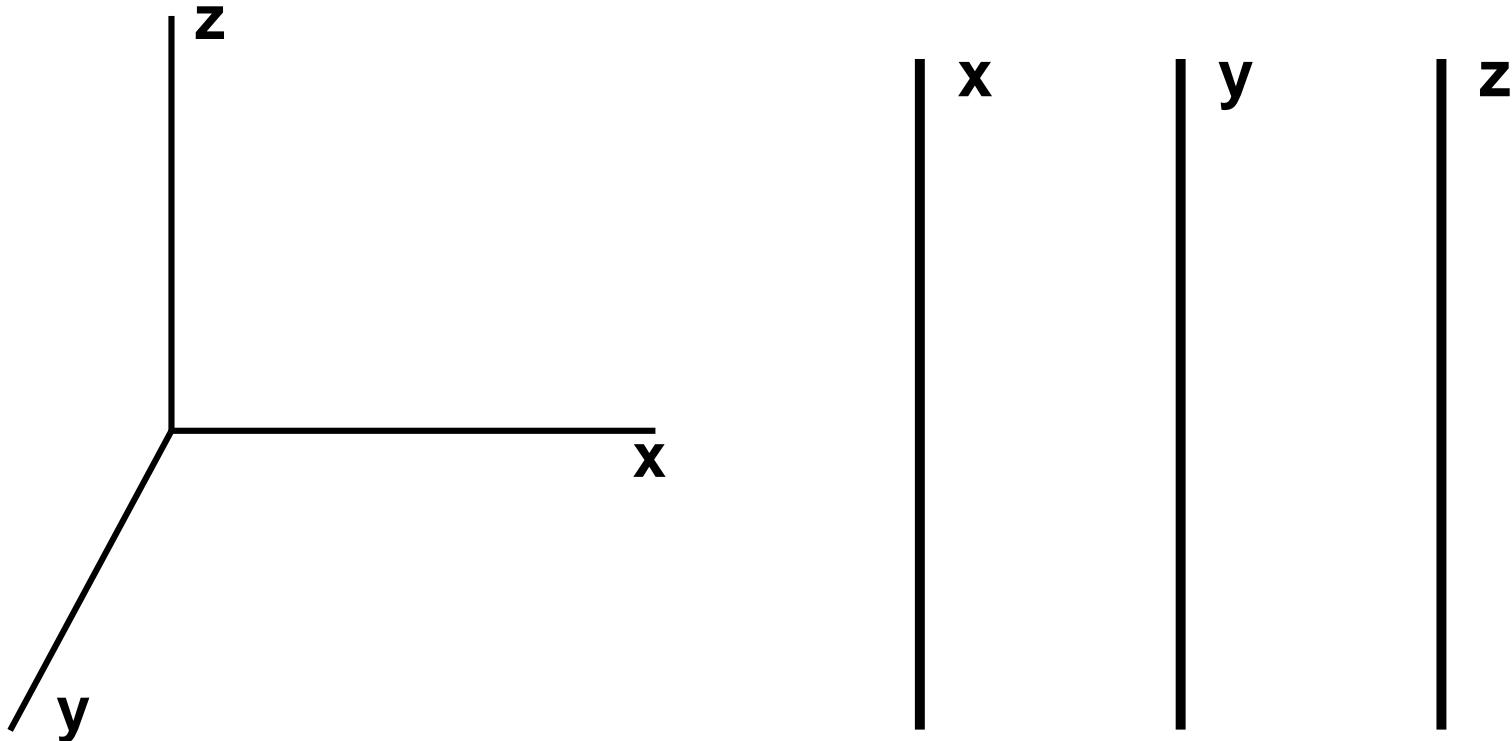
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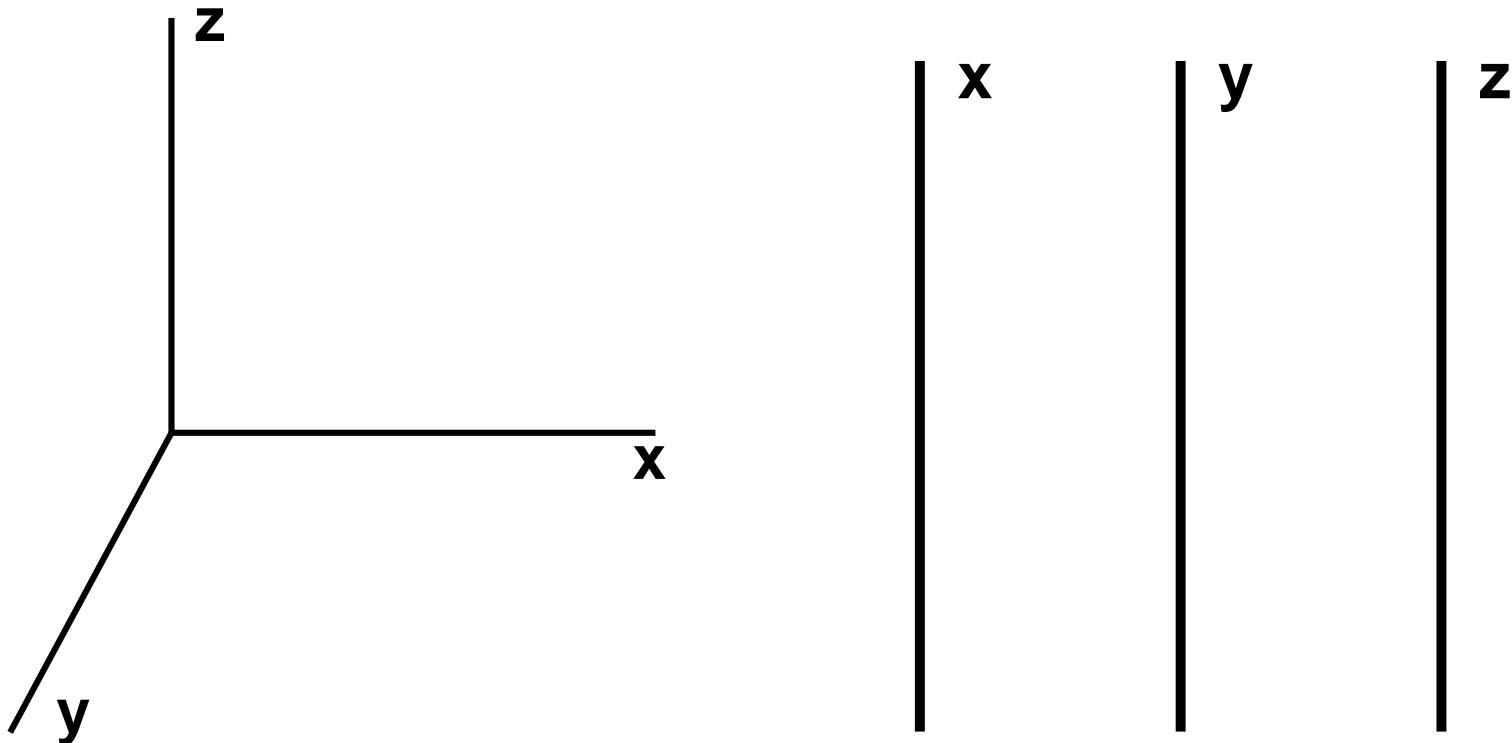
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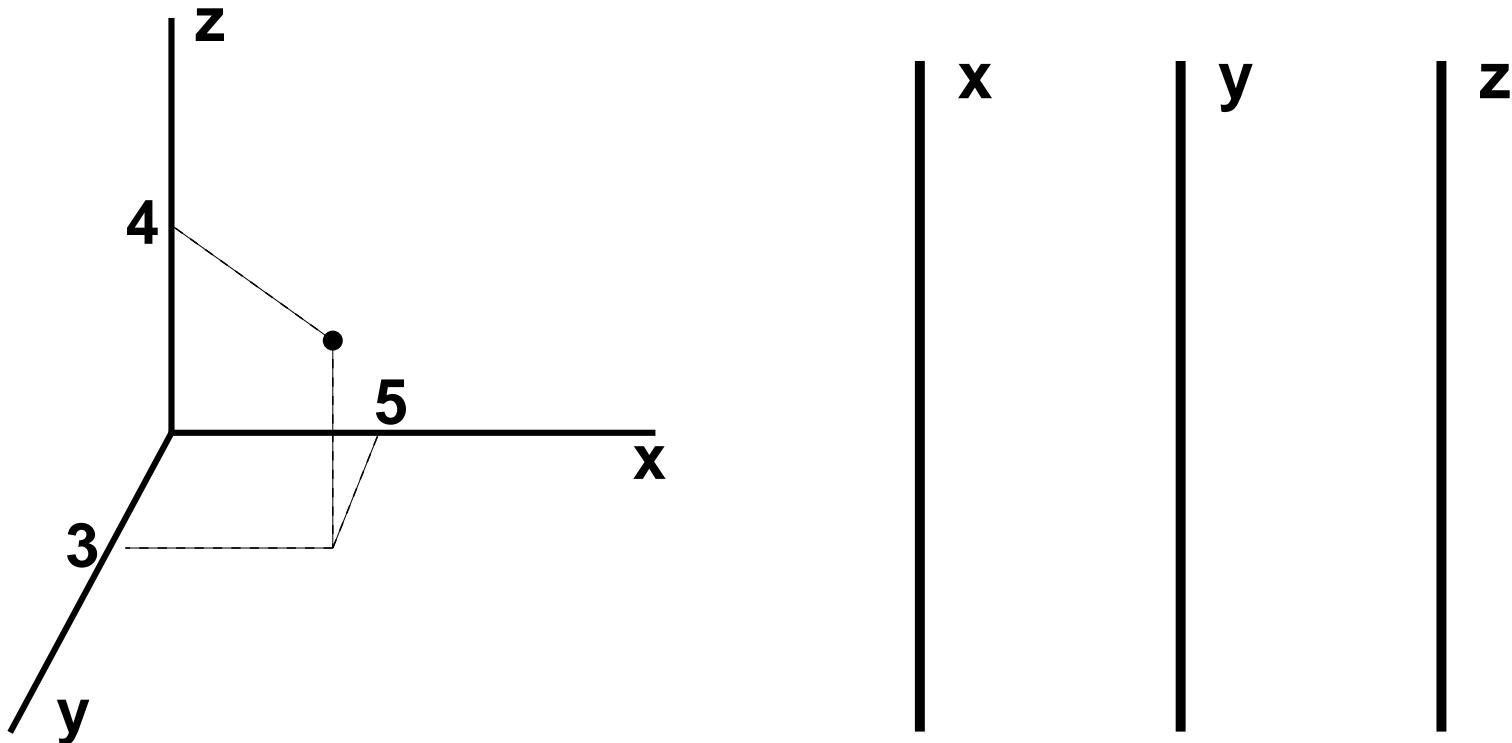
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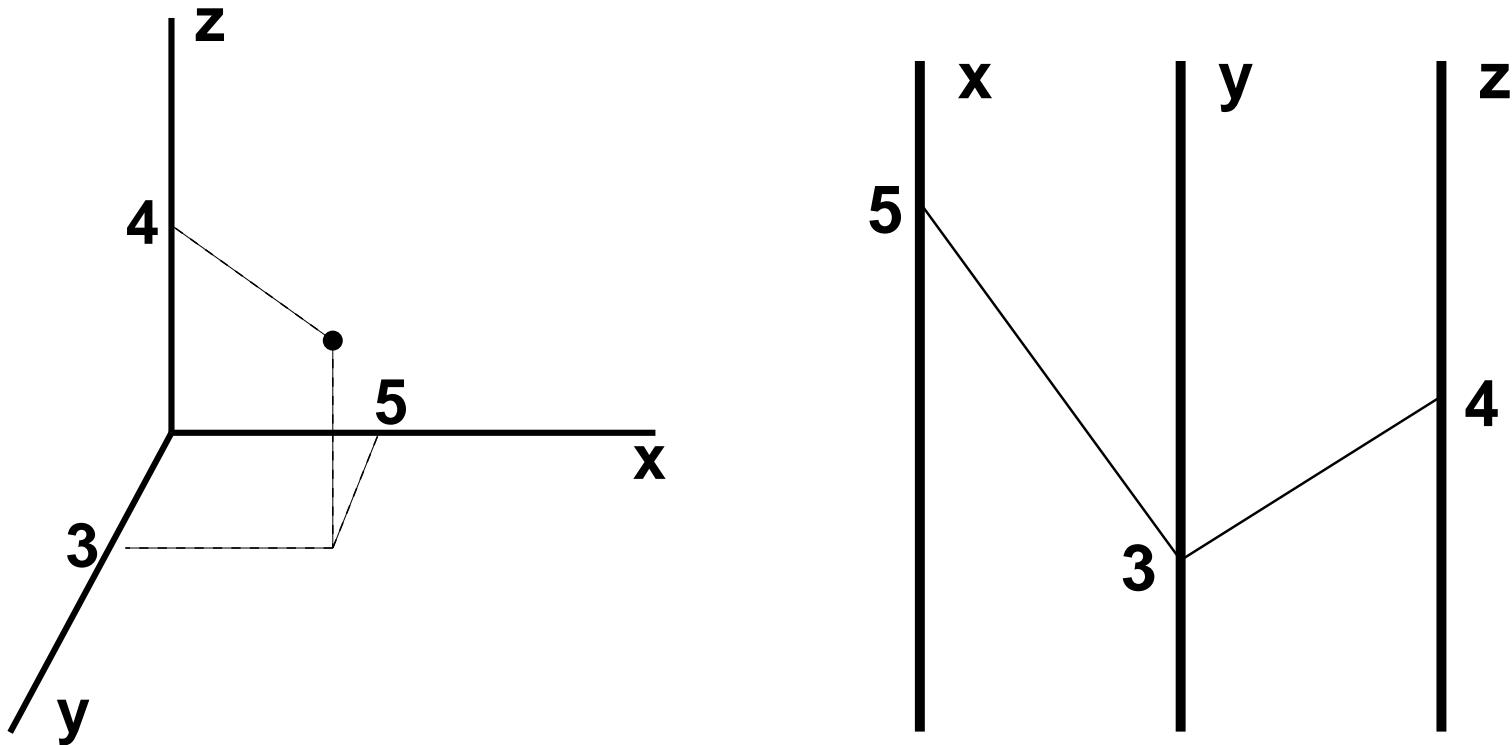
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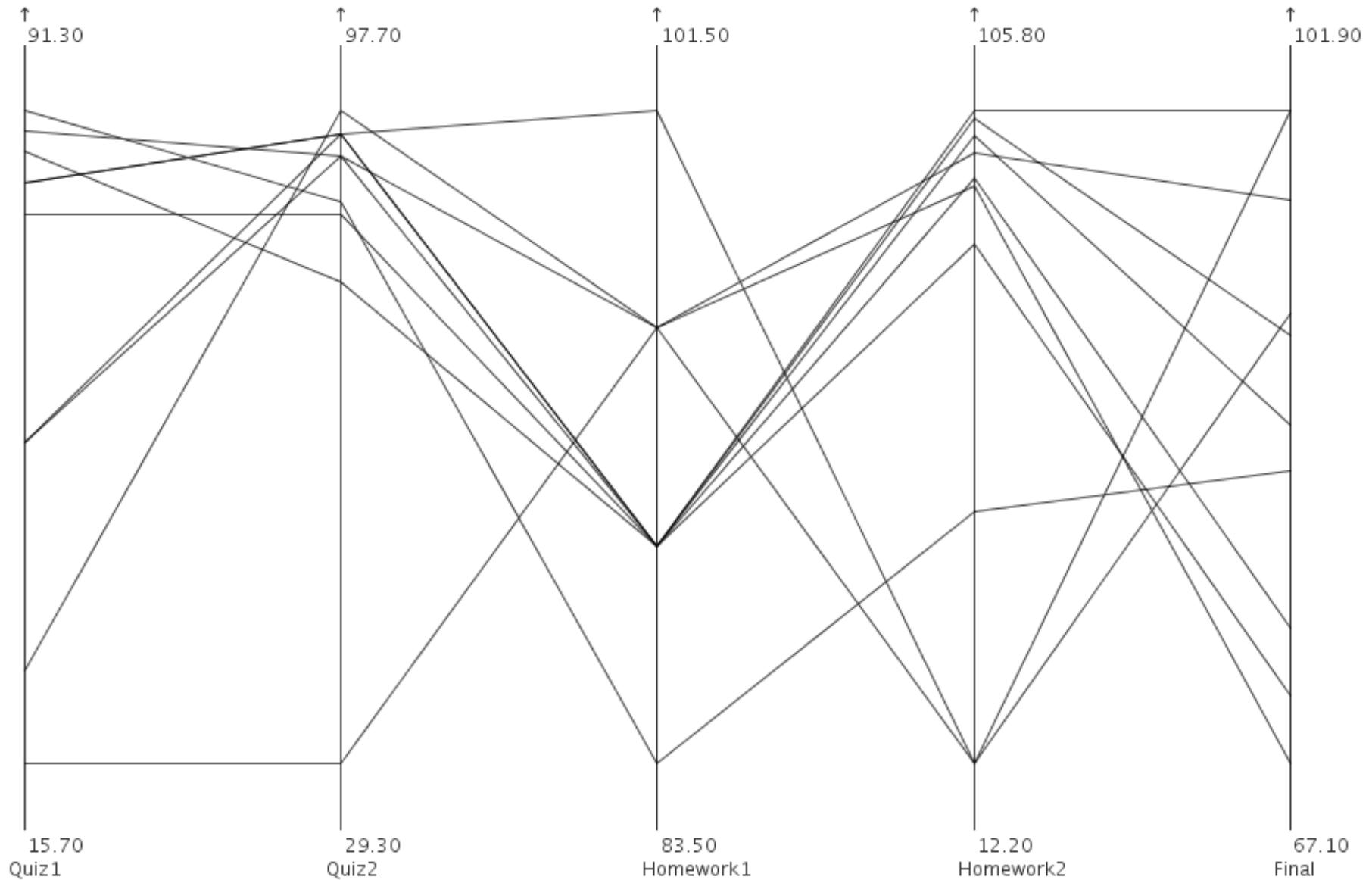
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# Example

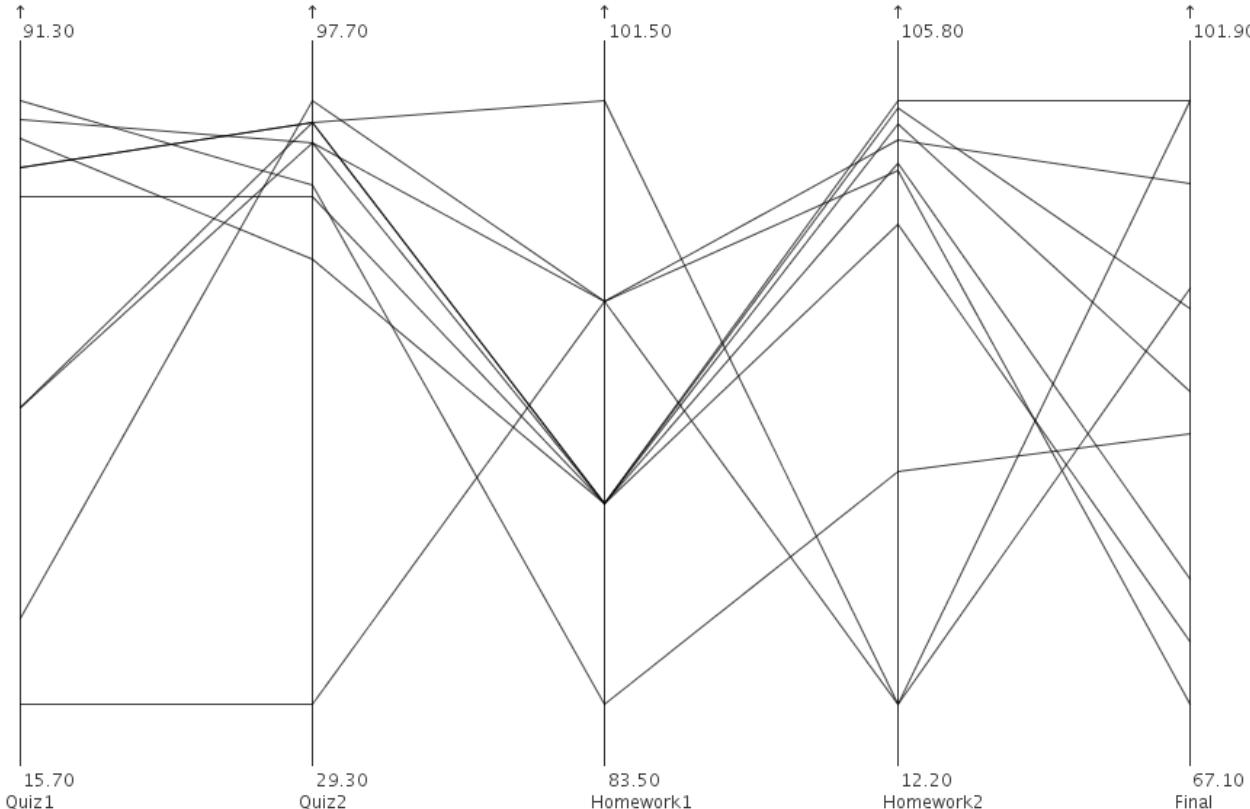
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# Advantages

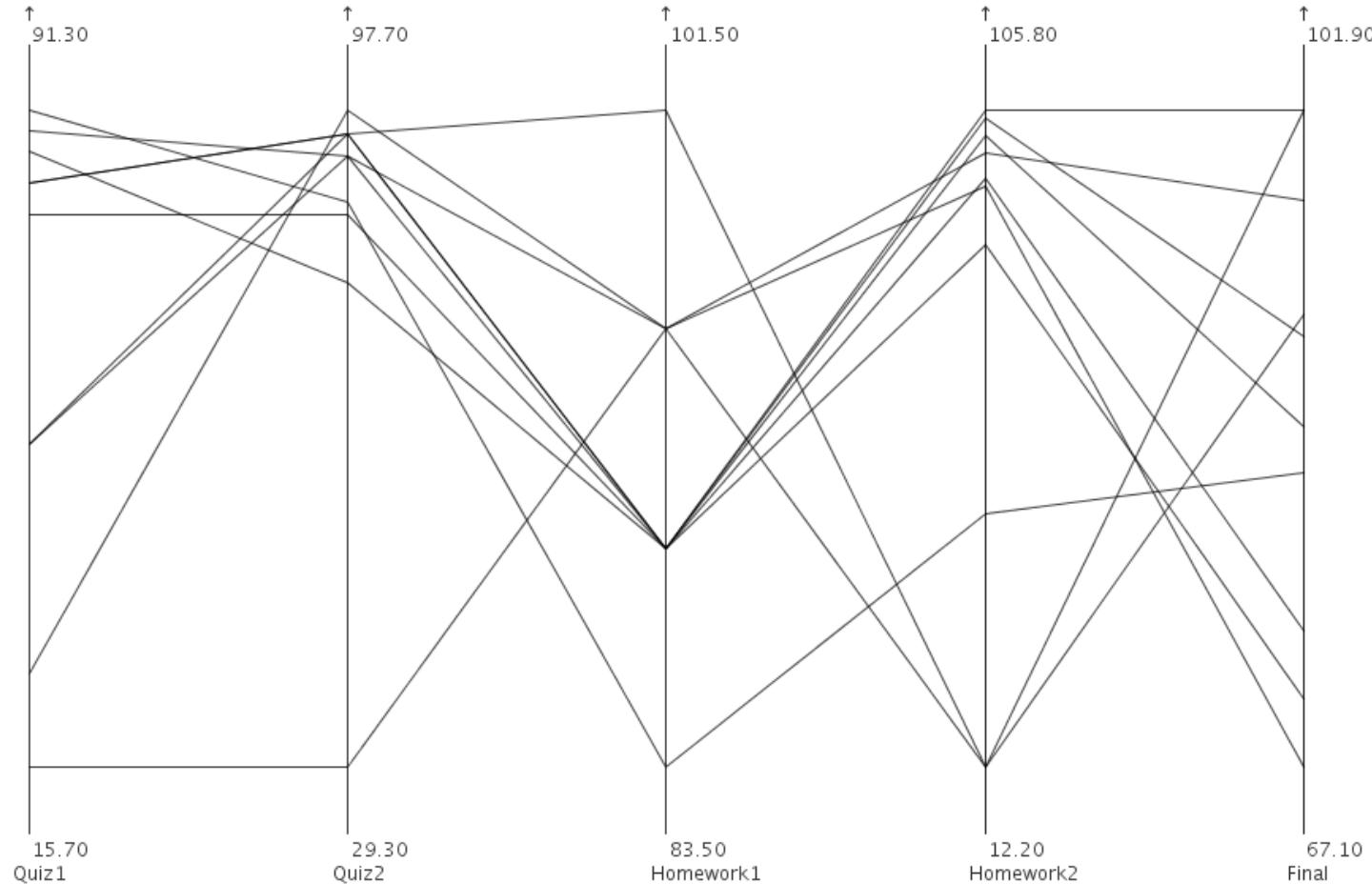
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- Allows many dimensions
- Straightforward mapping
- Human perceptual system is good at seeing connectedness and patterns



# Challenge: Ambiguity

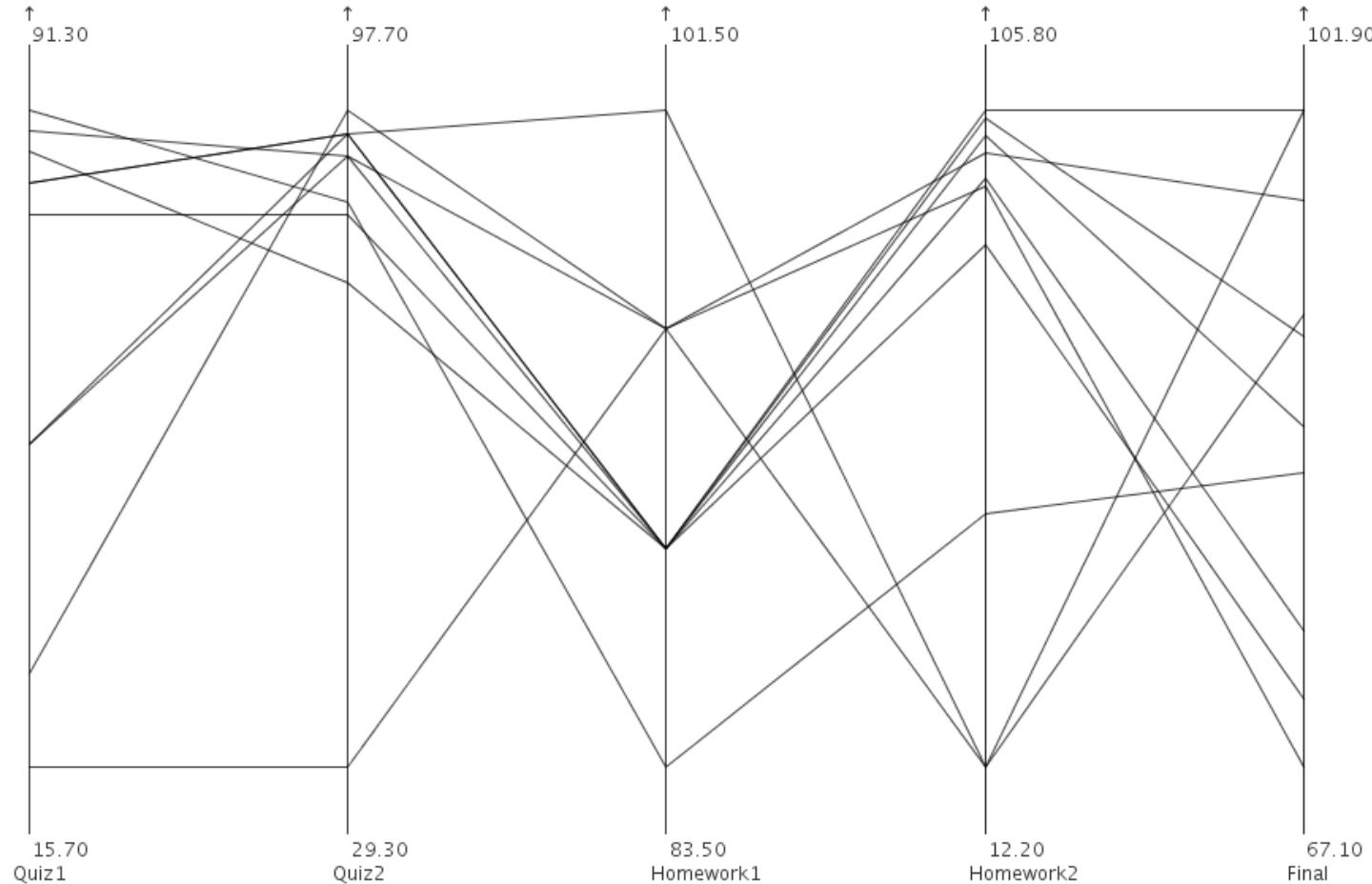
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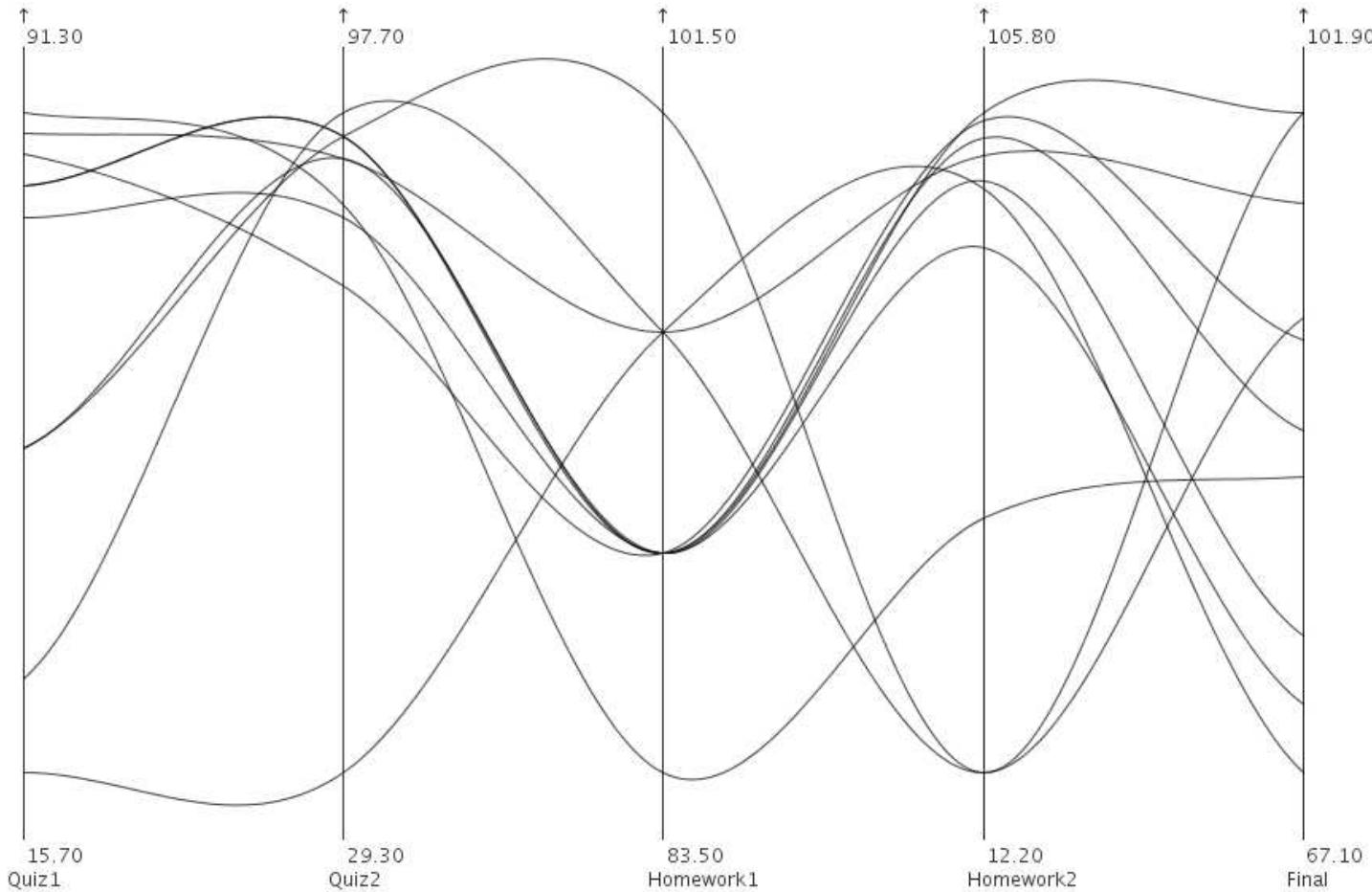
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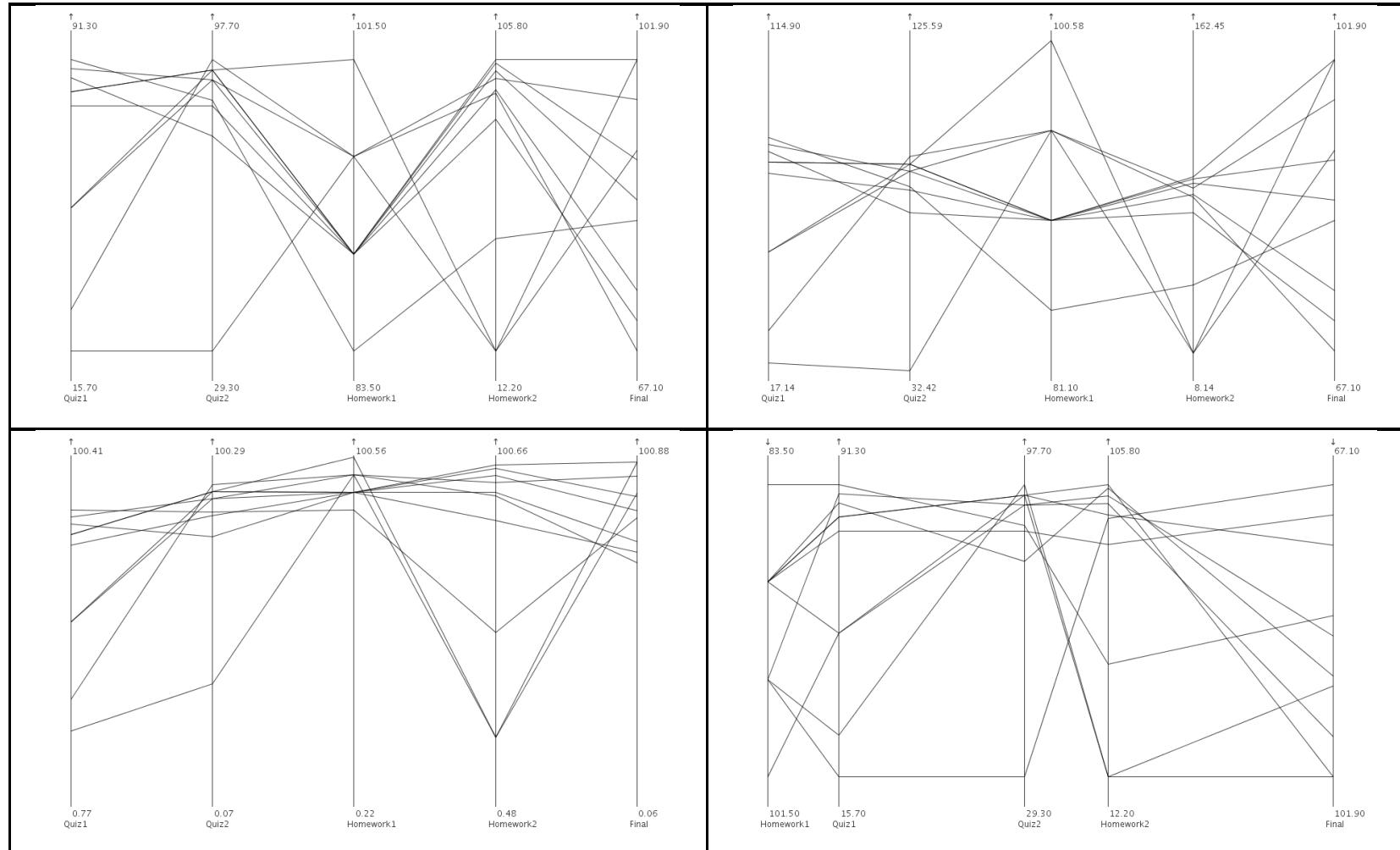
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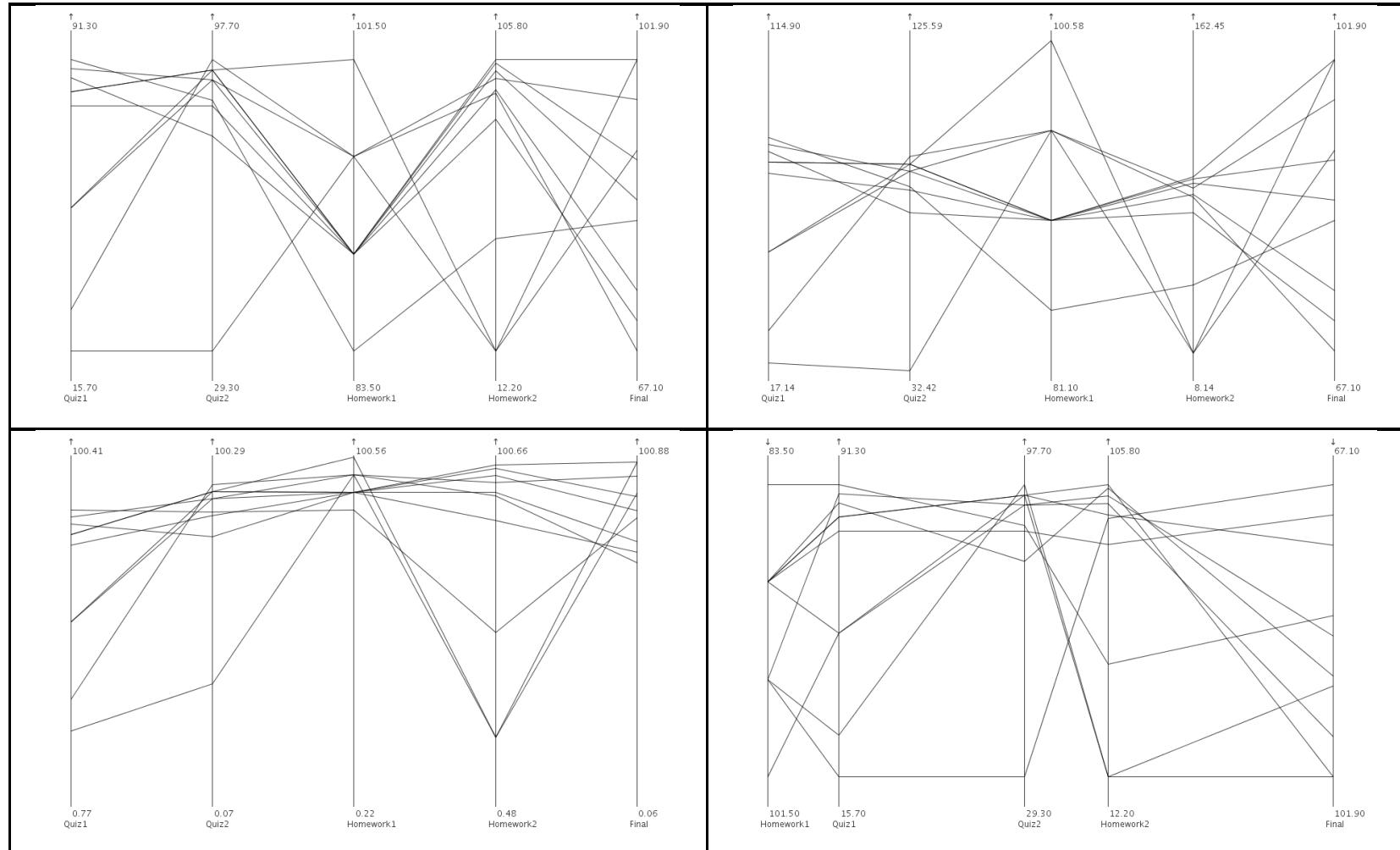
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- View affected by axis ordering, sign, scaling, translation

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  - Retrospective (since age 15, up to 40 years)
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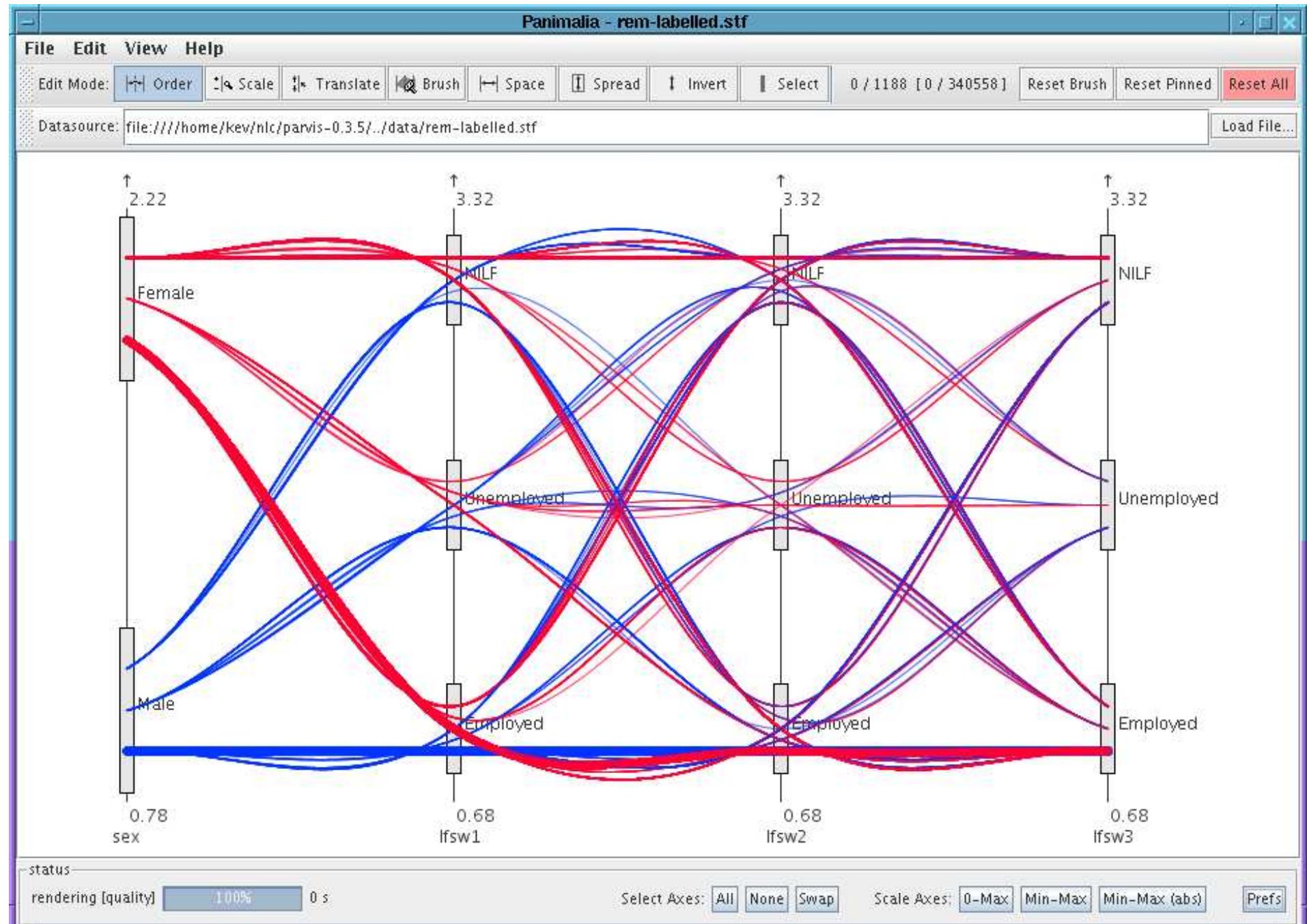
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  - Single, co-habiting, married

# Labour force status

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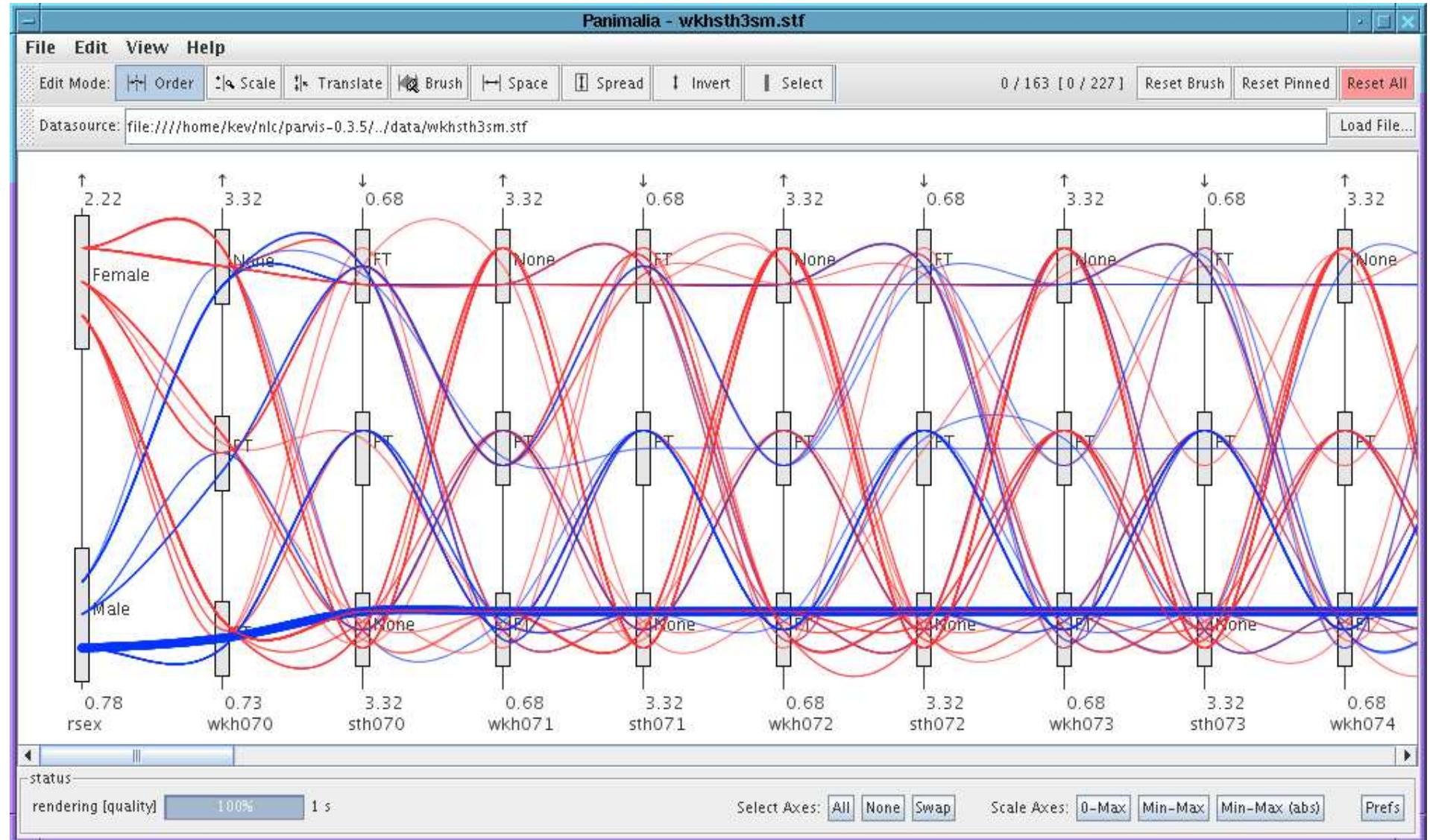
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# Work/study: separately by year

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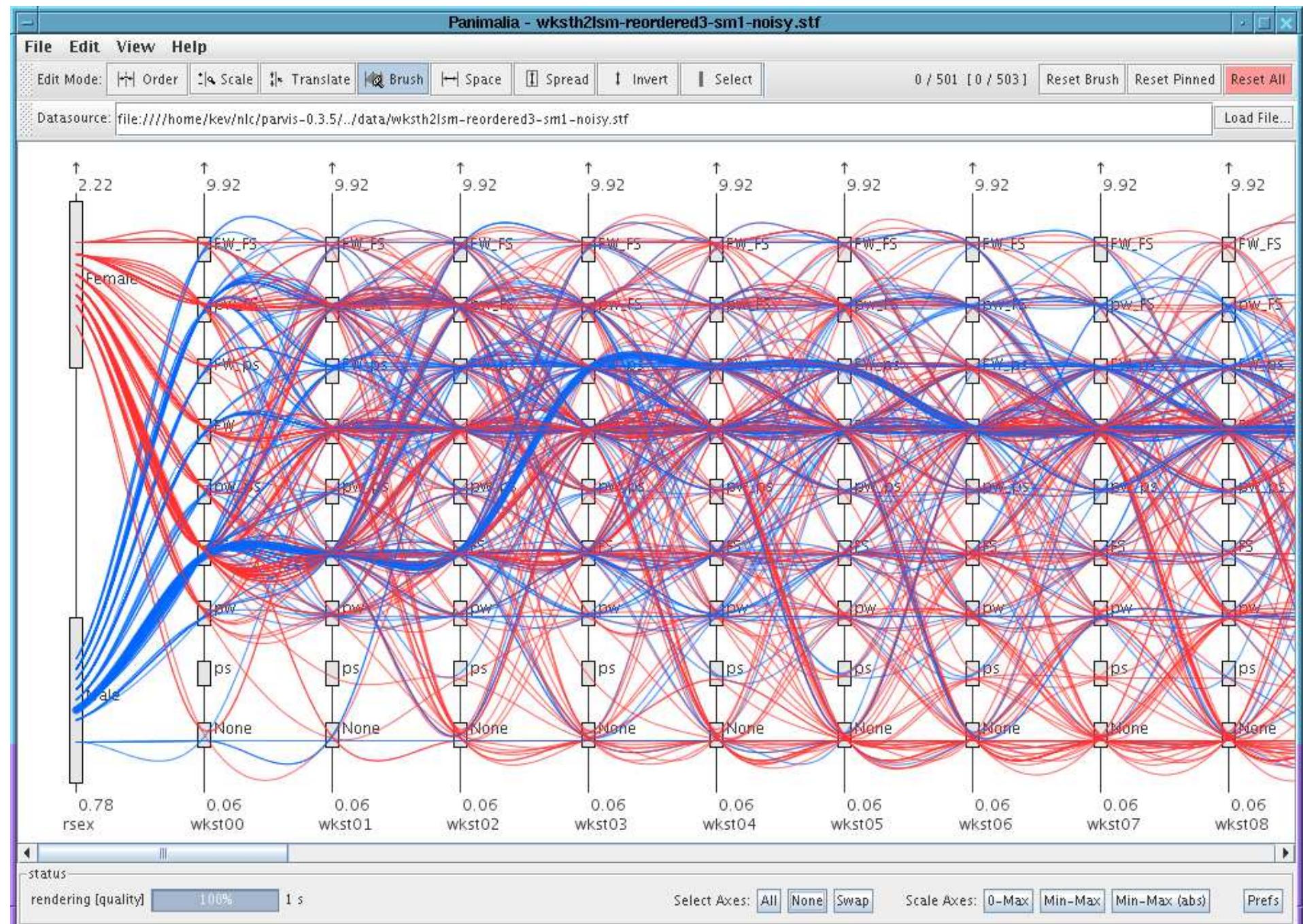
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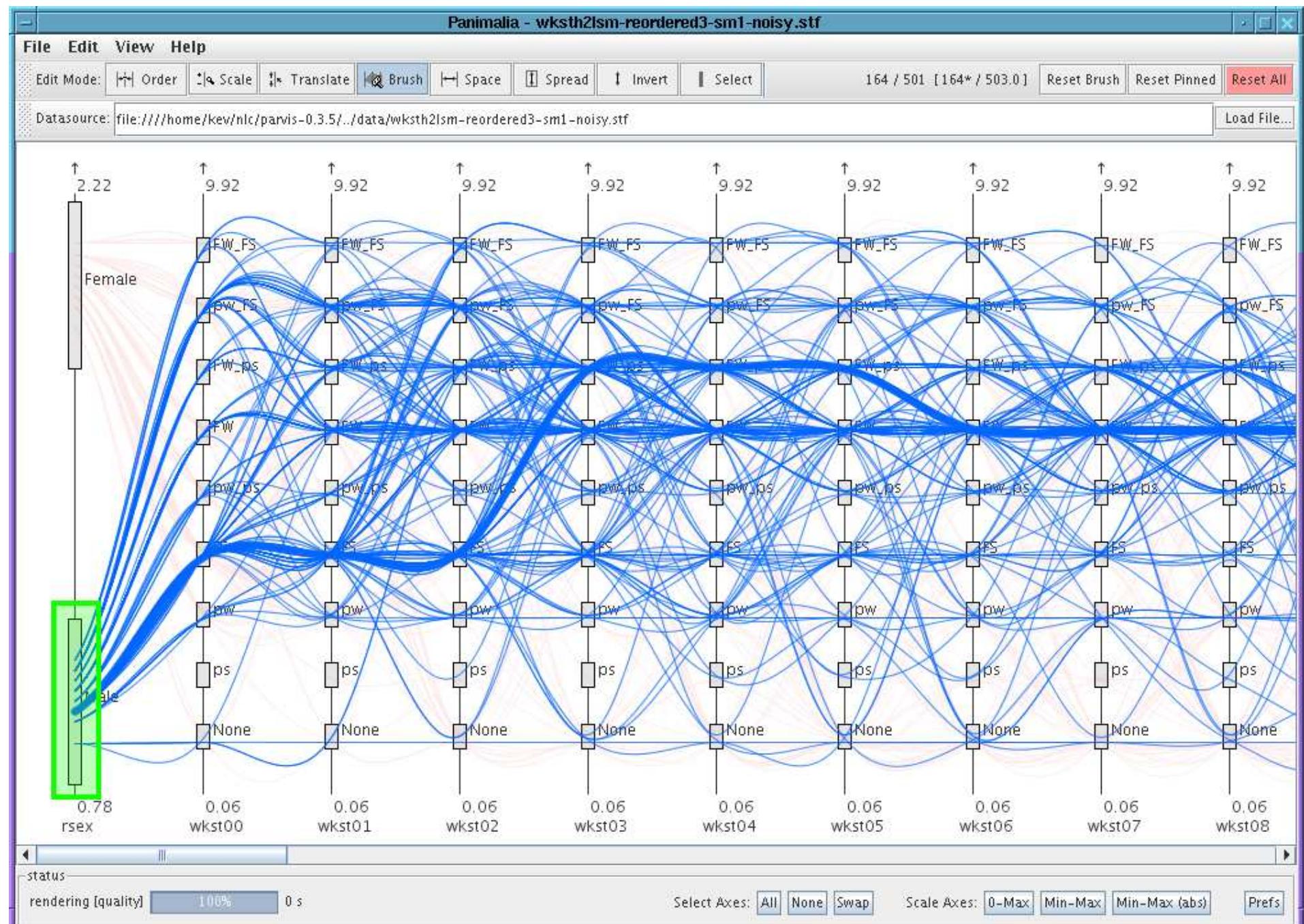
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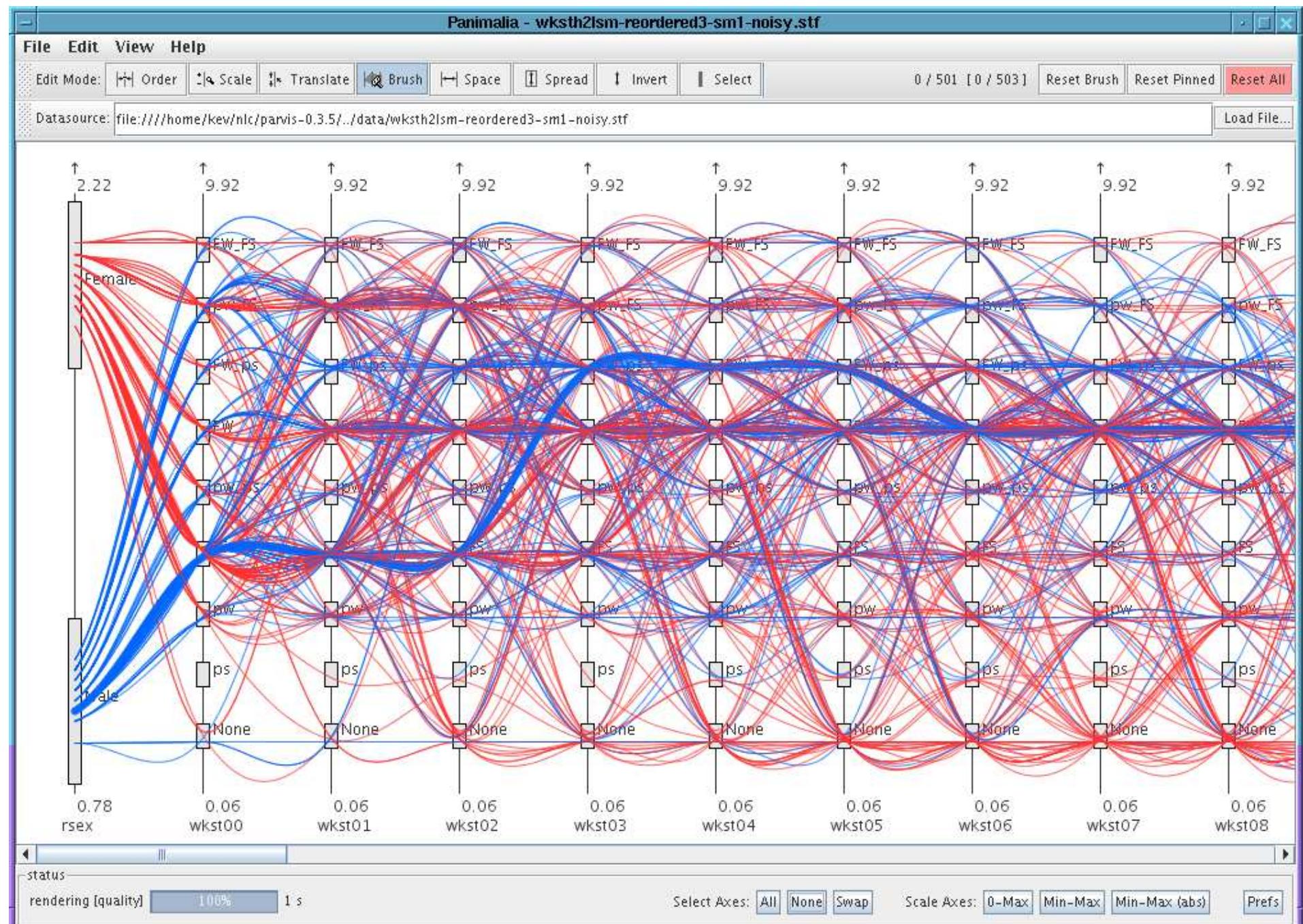
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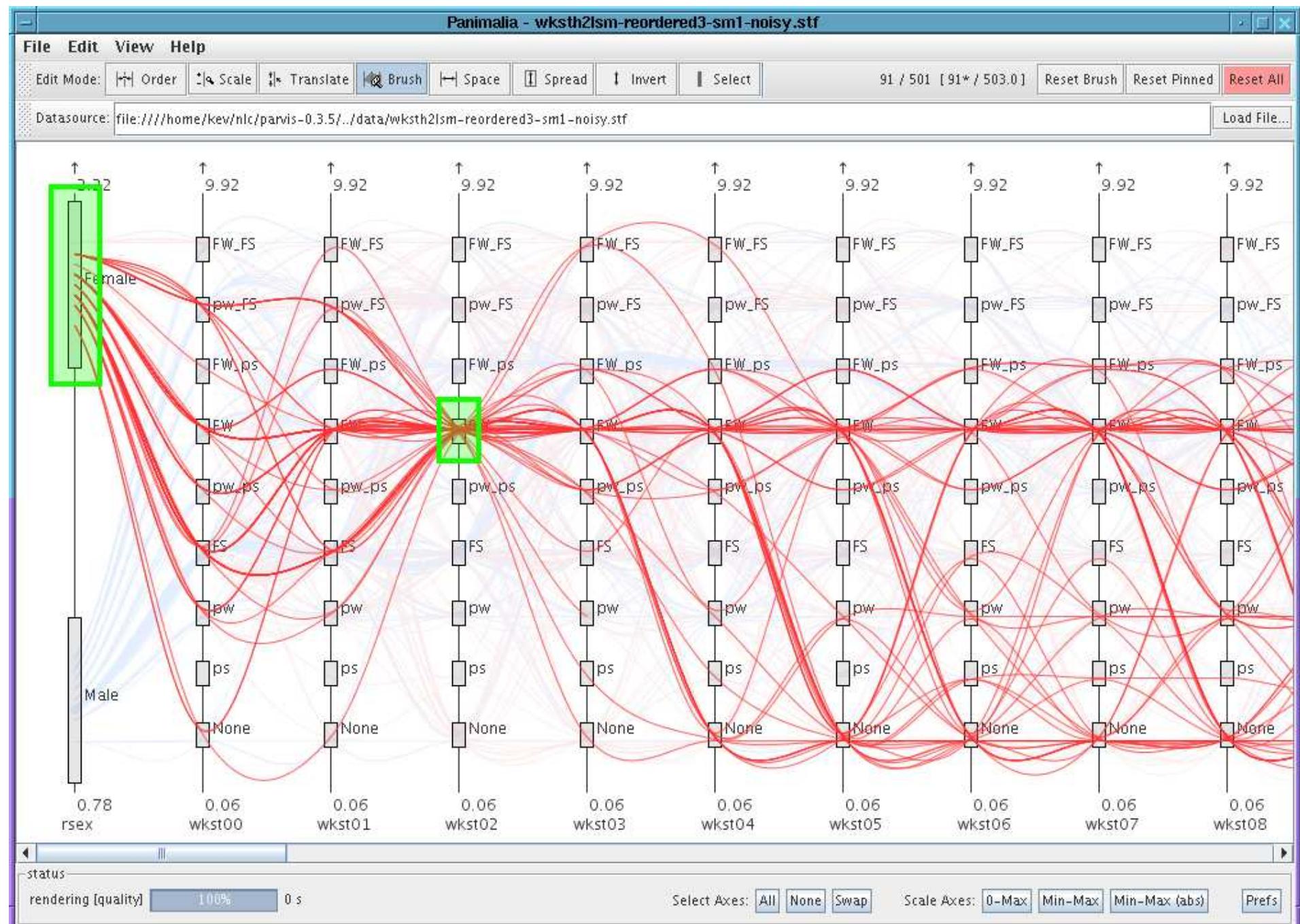
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