

# Report

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Last time:

- we normalized the count measures into percentages, and then used Dirichlet for emission distribution.

This time:

- Play with Compositional-LV simulated data
- Set up a new model, where we use counts as observations, and Poisson as emission
- Set the dynamics in log space

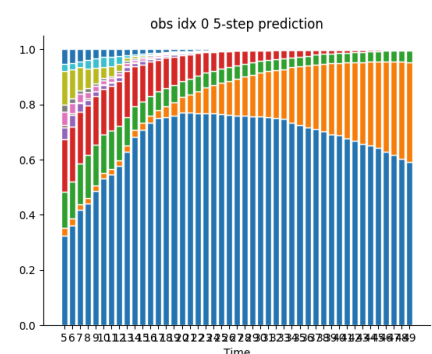
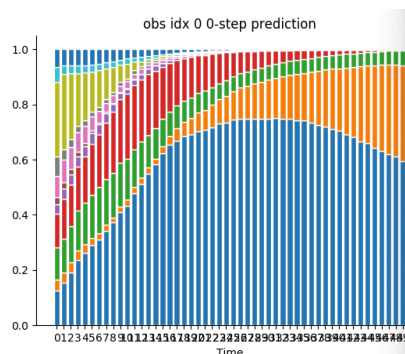
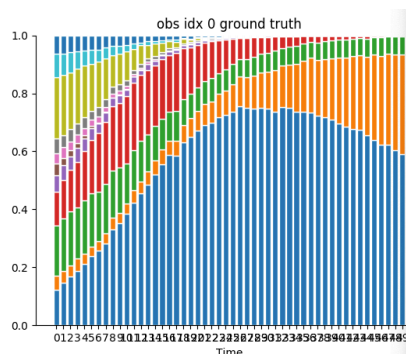
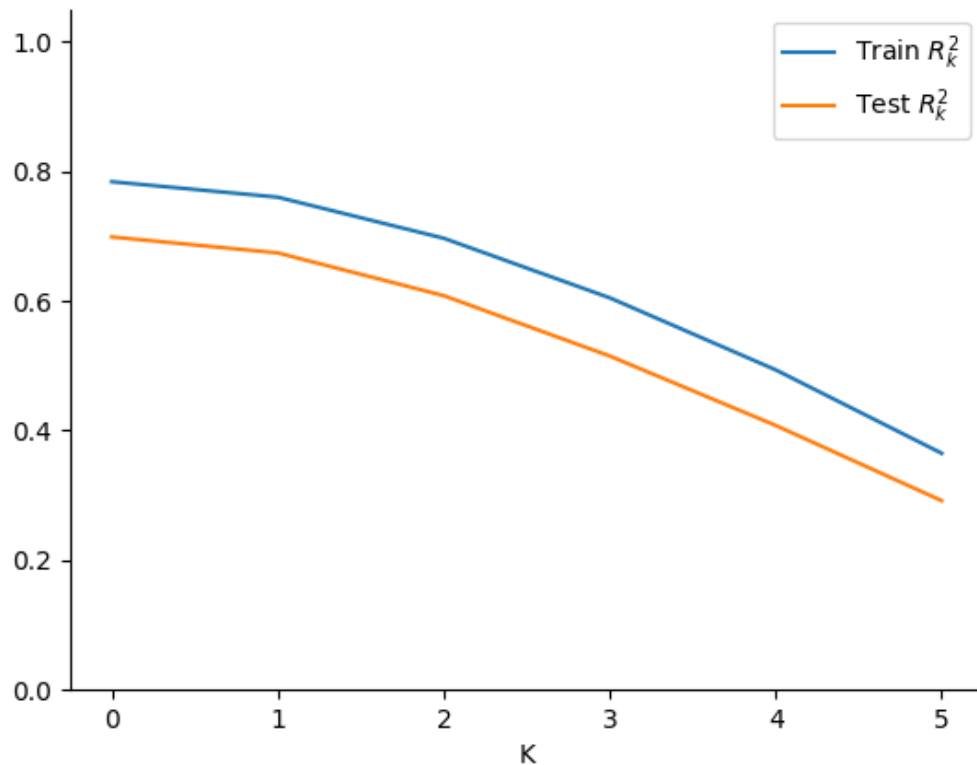
## Dirichlet model

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- Compositional LV model (no inputs)

The model performs well in the following cases

- Full observation
- 20% missing obs
- 40% missing obs
- 60% missing ops



- Only one patient's data

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- Dynamics in log space

Implementation:

- From observation space to hidden space: apply a log transformation.
- From hidden space to observation space: apply an exp transformation.

Results:

- No big improvements

## Poisson model

- Works well with the CLV data
- Does not work well with the real data

## Some thoughts

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Data..

particle degeneracy