**Long Description and Alt-text (for accessibility) for figures 1 and 2.**

Full resource: <https://www.ncrm.ac.uk/resources/online/all/?id=20853>

**Figure 1: Example of a sequence of states measuring housing instability at 6 time points, with basic structural elements of sequences highlighted.**

The image is a conceptual diagram illustrating states, transitions, and sequences. It consists of rectangles labelled either "Housed" or "Homeless." Green rectangles represent the "Housed" state, and pink rectangles represent the "Homeless" state. Arrows connect the rectangles, showing transitions between states. A sequence begins with three "Housed" states, transitioning to two "Homeless" states, and ending with a "Housed" state. Labels above the diagram define concepts: "State" is a characteristic at a given point, "Spell" denotes identical concurrent states, and "Transition" indicates a change in states. Below the diagram, a dashed line labelled "State Sequence" conveys an ordered list of states. At the bottom, "Alphabet," defined as a list of possible values a state can take, lists the "Housed" and "Homeless" states with respective colours.

Alt-text:

Diagram showing states and transitions between "Housed" and "Homeless."

Transcribed Text:

State (Characteristic at a given point)

Spell (Identical concurrent states)

Housed

Homeless

Transition (Change in states)

State Sequence (Ordered list of states)

Housed

Homeless

Alphabet (List of possible values a state can take)

**Figure 2: Examples of different formats of longitudinal data accepted by TraMineR**

The image consists of three tables labelled "State Sequence, STS", "State Permanence Sequence, SPS", and "Spell format, SPELL". Each table captures different ways of recording an individual's housing status over time. The first table, "State Sequence, STS", shows time points and indicates the housing status ("Housed" or "Homeless") of "Person A" across six-time points, housing\_t1 to housing\_t6. The second table, "State Permanence Sequence, SPS", summarises the same information in terms of spells, which note the status and the duration of each spell. The third table, "Spell format, SPELL", lists the start and end times of each spell for "Person A" and the housing state during those periods.

Alt-text:

Three tables showing different formats of state and spell information for an individual's housing status over time.

Transcribed Text:

State Sequence, STS (Status at each time-point is recorded as a separate column)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Id | housing\_t1 | housing\_t2 | housing\_t3 | housing\_t4 | housing\_t5 | housing\_t6 |
| Person A | Housed | Housed | Housed | Homeless | Homeless | Housed |

State Permanence Sequence, SPS (Columns record the state and spell length)

|  |  |  |  |
| --- | --- | --- | --- |
| Id | spell\_1 | spell\_2 | Spell\_3 |
| Person A | Housed, 3 | Homeless, 2 | Housed, 1 |

Spell format, SPELL (Multiple rows per person recording the start and end of spells)

|  |  |  |  |
| --- | --- | --- | --- |
| Id | Start\_time | End\_time | State |
| Person A | t1 | t3 | Housed |
| Person A | t4 | t5 | Homeless |
| Person A | t6 | t6 | Housed |