

Model setup

- initial surface
- climatic forcing
- sea level forcing
- tectonic forcing

Run *pyBadlands* models

Output of stratigraphic layers

- depth
- thickness
- relative elevation

Reconstruct stratal architectures

- stratal stacking pattern
- Wheeler diagram

Stratigraphic interpretations

1. Based on temporal evolution of stratal stacking patterns,

mark stratal terminations →
identify key stratigraphic surfaces

2. Based on final outputs

2.1 Trajectory analysis:

mark shorelien/shelf-edge trajectories → define trajectory classes

2.2 Accommodation succession method:

mark offlap break trajectory, stratal terminations → define stratal stacking trend

3. Based on successive outputs

3.1 Trajectory analysis:

calculate shorelien/shelf-edge trajectories → define trajectory classes

3.2 Accommodation succession method:

calculate changes in accommodation and sedimentation → define stratal stacking trend