

Diagrams for presentation

Alán F. Muñoz

April 2, 2025

Outline

```
%%{init: {'theme': 'forest',    "flowchart": {"useMaxWidth":
```

```
graph LR
```

```
  A[(Raw Images)] --> b[Segmentation]
```

```
  b --> C[(Masks)]
```

```
  C --> c[Measurements]
```

```
  A --> c
```

```
  c --> D[(Raw Profiles)]
```

```
  D --> E{Time series?}
```

```
  E -- Yes --> f[Tracking] --> g[Tracks]
```

```
  g --> h[Time reduction]
```

```
  h --> S[Signal Processing]
```

```
  E -- No --> h
```

```
  S --> F[(Processed profiles)]
```

```
  F --> Statistics --> G[(Significance)]
```

```
  A --> H[Marimo notebooks]
```

```
  G --> H
```

```
  F --> H
```

```
  F --> R[Dimensionality reduction] --> L[(Low Dim Profil
```

L --> H

H -- Exploration and feedback --> A

```
%%{init: {'theme': 'forest',    "flowchart": {"useMaxWidth":
```

```
graph LR
```

```
  A[(Raw Images)] --> b[Cellpose]
```

```
  b --> C[(Masks)]
```

```
  C --> c[cp_measure]
```

```
  A --> c
```

```
  c --> D[(Raw Profiles)] --> E{Time series?}
```

```
  E -- Yes --> f[stitch3D tracking] --> d[catch22]
```

```
  E -- No --> e[trommel]
```

```
  d --> e
```

```
  e --> F[(Processed profiles)]
```

```
  F --> K[DuckDB] --> G[(Well-level profiles)]
```

```
  G --> Copairs --> H[(Profile significance)]
```

```
  G --> UMAP --> J[(Embeddings)]
```

```
  G --> t-test --> L[(Feature significance)]
```

```
  A --> I[Marimo]
```

```
  H --> I
```

G --> I

J --> I

L --> I

I -- Exploration and feedback --> A