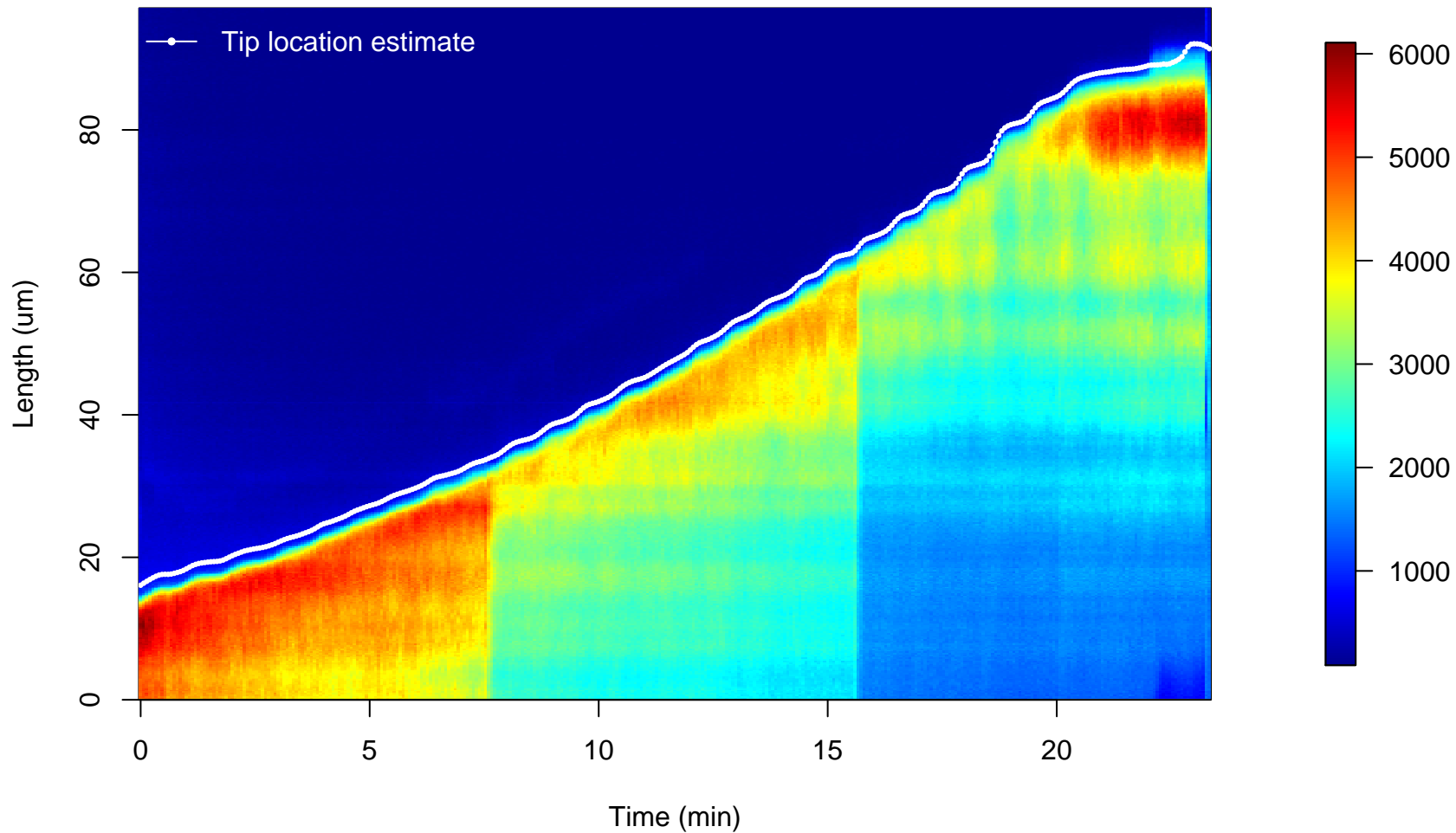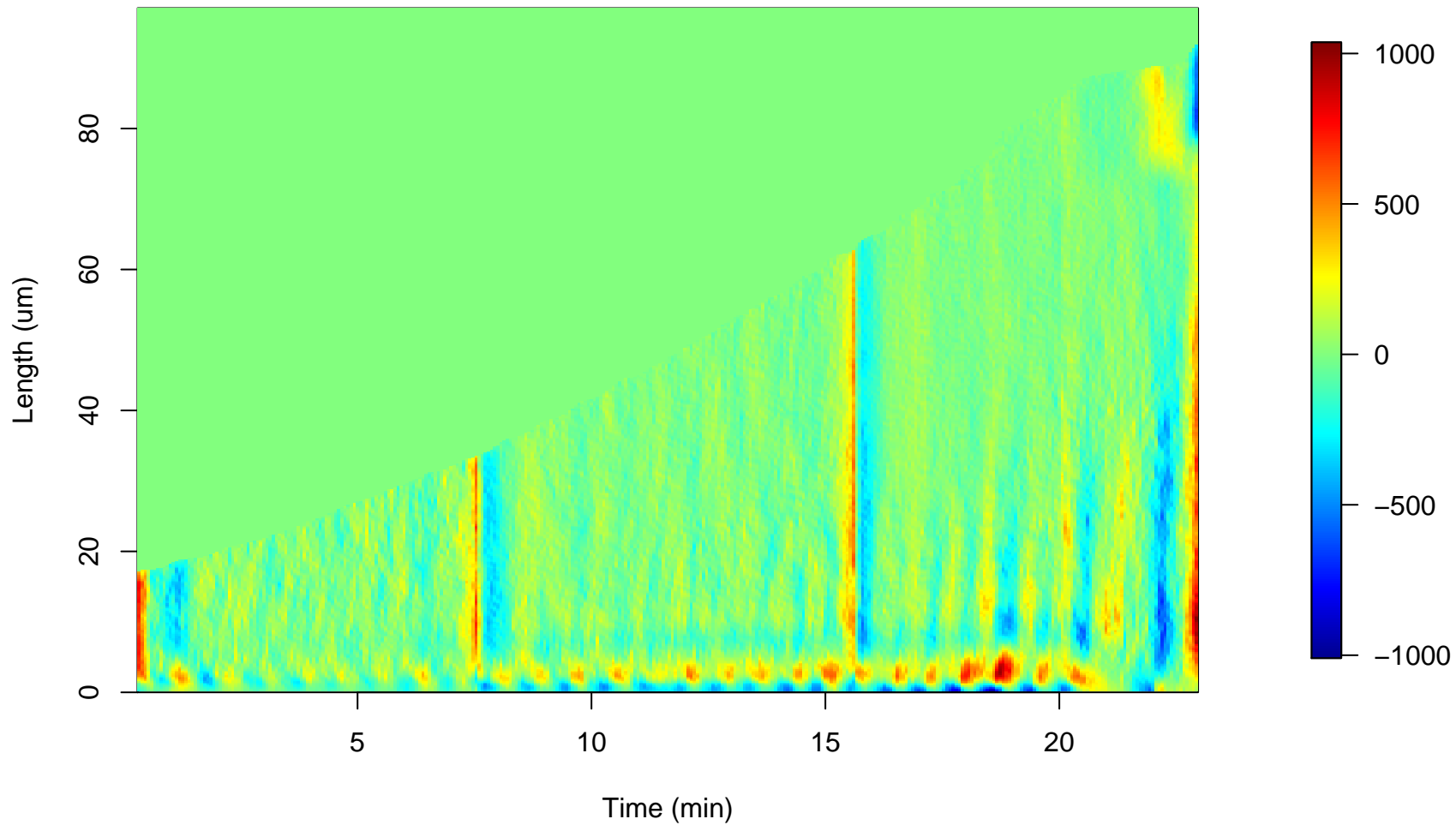**YC kymograph**

Tip location estimate

Length (um)

Time (min)

**Filtered tip aligned kymograph**

**Filtered tip aligned kymograph**

Length (um)

Time (min)

Shank

Tip

1000

500

0

−500

−1000