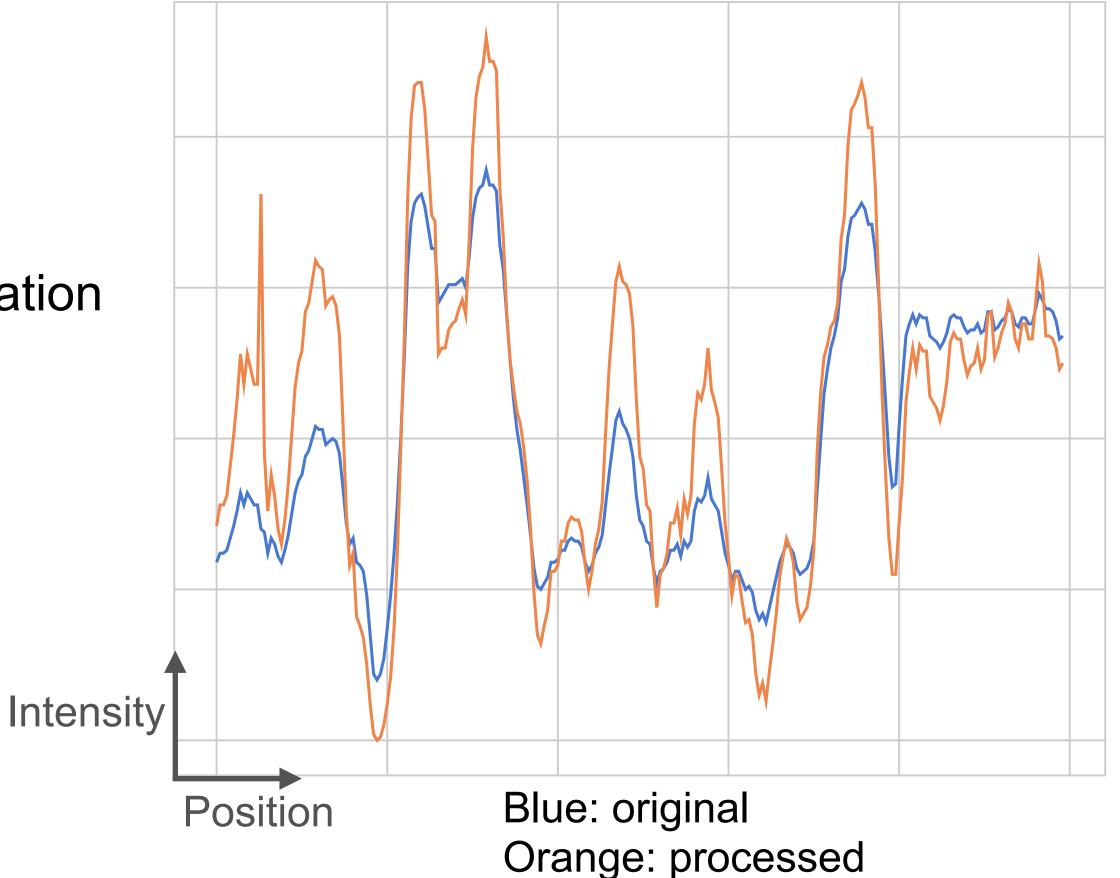
## **Preprocessing - Miscellaneous**

## **Theoretical Background**

- Gaussian Blur
- Median Filter
- CLAHE

Contrast Limited Adaptive Histogram Equalisation

HE Enhance local contrast **A**daptive HE Reduce noise amplification Contrast Limited AHE







## Preprocessing - SLIC Superpixel

## **Theoretical Background**

- Cluster to the nearest centre pixel
- Pixel as 5D vector:  $[l, a, b, x, y]^T$
- Distance:

$$d_{c} = \sqrt{(l_{c} - l_{i})^{2} + (a_{c} - a_{i})^{2} + (b_{c} - b_{i})^{2}},$$

$$d_{s} = \sqrt{(x_{c} - x_{i})^{2} + (y_{c} - y_{i})^{2}},$$

$$D = \sqrt{d_{c}^{2} + \left(\frac{d_{s}}{r}\right)^{2} m^{2}},$$

$$r = \sqrt{n_{I}/k}$$

