

## 19.1 Rolling Window Estimation

Friday, March 19, 2021 9:50 AM



Window width =  $W$

$$\hat{y}_{50} = f(I_{49})$$

$$\hat{y}_{51} = f(I_{50})$$

$$\hat{y}_{52} = f(I_{51})$$

...

$$\hat{y}_{200} = f(I_{199})$$

$$e_{50} = y_{50} - \hat{y}_{50}$$

$$\hat{e} = y - \hat{y}$$

$$\sqrt{\sum e^2 / n} = \text{Rolling window RMSE}$$

$$\text{forecast interval} = \hat{y}_{\max+1} \pm 1.96 \cdot \text{RW/RMSE}$$

