

10/31/23

Formation A

0 0.29

 $h = 30$

10 0.54

 $C(h) = ?$

20 0.79

$$C(h) = \frac{1}{N_h - 1} \sum_{i=1}^{N_h} (\phi(x_i) - \bar{\phi}) \times (\phi(x_i + h) - \bar{\phi})$$

30 0.9

40 0.79

50 0.54

$$(0.29 - 0.53)(0.9 - 0.53)$$

$$(0.54 - 0.53)(0.79 - 0.53)$$

60 0.29

$$(0.79 - 0.53)(0.29 - 0.53)$$

70 0.12

$$(0.9 - 0.53)(0.54 - 0.53)$$

$$(0.79 - 0.53)(0.12 - 0.53)$$

+

$$-0.2787$$

$$C(h=30) = \frac{1}{5-1}(-0.2787) = -0.0697$$

$$V(\phi) = 0.08 \Rightarrow \text{Corr}(h) = -0.88$$

①

$$\delta(h=30) = ?$$

$$\begin{array}{r} (0.29 - 0.9)^2 \\ (0.54 - 0.79)^2 \\ (0.79 - 0.54)^2 \\ (0.9 - 0.29)^2 \\ + (0.79 - 0.12)^2 \\ \hline 1.318 \end{array}$$

$$\delta(30) = \frac{1.318}{2 \times 5} = 0.1318$$