

3-7. Bar  $AB$  rotates with a normally distributed angular velocity  $\omega_{AB} \sim N(5, 0.5^2)$  rad/s. If  $\theta_1 = 30^\circ$  and  $\theta_2 = 45^\circ$ , determine the velocity of the slider block  $C$ . Assume  $L_{AB} = 0.5$  m and  $L_{BC} = 0.8$  m.

**Solution:**  $v_C \sim N(3.42, 0.34^2)$  m/s.

