

$$\sum_{\sigma_1, \dots, \sigma_{\mathcal{R}}} \text{Diagram 1} \approx \text{Diagram 2} = \text{Diagram 3}$$

The diagram illustrates a sequence of operations or states, likely related to a quantum circuit or a sequence of measurements.

Diagram 1 (Left): A horizontal bar labeled F is shown. Below the bar, a sequence of labels $\sigma_1, \sigma_2, \dots, \sigma_{\ell}, \dots, \sigma_{\mathcal{L}}$ is displayed. Vertical lines connect the bar to each of these labels.

Diagram 2 (Middle): A horizontal line with 'x' markers at both ends. Above the line, a sequence of labels $M_1, M_2, \dots, M_{\ell}, \dots, M_{\mathcal{L}}$ is shown. Below the line, a sequence of labels $\sigma_1, \sigma_2, \dots, \sigma_{\ell}, \dots, \sigma_{\mathcal{L}}$ is shown. Each M_i is connected to a white circle on the line, which is in turn connected to a black circle labeled σ_i .

Diagram 3 (Right): A horizontal line with 'x' markers at both ends. Below the line, a sequence of gray circles is shown, representing a simplified or aggregated state.