
Which of the following statements is NOT correct?

- The eigenvalues of the position operator are all real numbers with proper units.
 - The eigenvalues of the momentum operator are all real numbers with proper units.
 - The function $\delta(x-x')$ is an eigenfunction of the position operator X with eigenvalue x' .
 - The matrix of the momentum operator is diagonal in the eigenbasis of the position operator.
 - Following the measurement of the position of a particle, the particle is in a state for which a subsequent momentum measurement would yield any value with the same probability.
 - Following the measurement of the momentum of a particle, the particle is in a state for which a subsequent position measurement would yield any value with the same probability.
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