## LECTURE NOTES

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## Introduction to

## Quantum Computing & Quantum Information Theory

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 $<sup>&</sup>quot;I\ do\ not\ like\ it\ [quantum\ mechanics],\ and\ I\ am\ sorry\ I\ ever\ had\ anything\ to\ do\ with\ it."\ -- Erwin\ Schrödinger$ 

<sup>&</sup>quot;Anyone who is not shocked by quantum theory has not understood a single word." —Niels Bohr

<sup>&</sup>quot;God does not play dice." —Albert Einstein

 $<sup>&</sup>quot;How\ I\ want\ a\ drink,\ alcoholic\ of\ course,\ after\ the\ heavy\ lectures\ involving\ quantum\ mechanics!"\ -- Isaac\ Asimov$