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**Measurement and control in quantum information science**

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Quantum information science has a broad interface with control theory. In the region of overlap between these two thriving fields, one finds compelling problems ranging from robust and time-optimal control of quantum dynamics to the analysis and design of concatenated coding schemes. In this talk I will begin with a brief overview of recent work on applications of control theory in quantum information science, and then provide a more detailed review of my own group's research on quantum feedback control, quantum state preparation and quantum metrology.