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1. A. Ashtekar, Lectures on non-perturbative canonical gravity, (Notes prepared in collaboration with R. S. Tate) (World Scientific, Singapore, 1991). (Classical theory, and older work on quantum theory: chapters 10 - 14 and 17 still useful)

2. R. Gambini and J. Pullin, Loops, Knots, Gauge Theories and Quantum Gravity (Loop treatment of gauge theories still useful)

3. C. Rovelli, Quantum Gravity. (Cambridge University Press, Cambridge (2004)) (General conceptual issues underlying quantum gravity; Pedagogical but not very detailed)

4. T. Thiemann, Introduction to Modern Canonical Quantum General Relativity. (Cambridge University Press, Cambridge, (2007)) (Detailed but may need to know before hand what you are looking for)

RELATIVELY RECENT REVIEWS


2. A. Perez, Introduction to loop quantum gravity and spin foams, arXiv:gr-qc/0409061 (Relatively short review; spin foam models)

3. A. Ashtekar and J. Lewandowski, Background independent quantum gravity: A status report, Class. Quant. Grav. 21, R53-R152 (2004); arXiv:gr-qc/0404018 (Detailed review of LQG, includes black holes and some LQC but no spin foams)

4. A. Ashtekar, Gravity and the Quantum, New J.Phys. 7, 198 (2005), gr-qc/0410054 (A general review of quantum gravity addressed non-experts. Section on historical development gives a bird’s eye view of the early development of quantum gravity and string theory)

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