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# Portfolio Risk Management Using Quantum Annealing

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**Abstract :** This paper describes the application of local-search metaheuristic quantum annealing to portfolio opti- mization. Heuristic technics are particularly handy when Markowitz' classical Mean-Variance problem is enriched with additional realistic constraints. Once tailored to the problem, computational experiments on real collected data have shown the superiority of quantum annealing over simulated annealing for this constrained optimization problem, taking advantages of quantum effects such as tunnelling.

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