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Test and evaluation in quantum annealing: Raising the bar for novel architectures

Because recent evidence that native random spin-glass problems are not well suited for benchmarking purposes of quantum annealers, efforts in the search for quantum speedup have shifted to carefully tailored problems, such as Google Inc.'s weak-strong clusters problems or D-Wave Systems Inc.'s frustrated-loop cluster problems. Here we demonstrate how carefully tailored, as well as non-tailored classical algorithms continuously raise the bar for new quantum annealing technologies.

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