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Quantum reservoir computing

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A universal quantum computer has to execute a long series of high-fidelity gates to be useful, which is very difficult to achieve experimentally. However, universal computing is only one approach to computation. There are other forms which sacrifice universality for fewer requirements on the physical system, such as analog simulation, annealing or variational approaches. This talk is about reservoir computing - a minimal computational model which shows how even a random system could be used to process information. Quantum reservoir computing may provide a practical way to utilize the noisy systems of the near future, but is there a quantum advantage?

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