Training of Analog Neural Networks

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Rethinking training and inference in artificial neural networks through the lens of hardware physics opens new possibilities for developing power-efficient architectures—commonly referred to as physical or analog neural networks. These networks harness analog physical systems—such as optical platforms—to perform computation. In this context, we discuss the trade-offs between different training strategies for analog neural networks, with a particular focus on physical local learning as a backpropagation-free alternative.