Integrated Photonic Chips for Autoencoders and Other Applications

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Integrated photonic circuits (IPCs), also known as integrated optical circuits or photonic integrated circuits (PICs), are microchips that incorporate multiple photonic components to form a functional circuit. These circuits are designed to detect, generate, transport, and process light, enabling a wide range of applications. In recent years, IPC technology has made significant advancements and has been utilized in various fields such as quantum walk, machine learning, and boson sampling. Moreover, IPCs have emerged as a powerful technology that enables the integration of various photonic components into a single chip. In this talk I will focus on some recent results on the applications of IPC to autoencoders and other applications.