

Embracing the Potential of Nonlinear Integrated Photonics Beyond Silicon: Advantages and Limitations

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Nonlinear integrated photonics is a rapidly evolving field that offers exciting opportunities for novel devices and applications, promising a realm of possibilities beyond traditional silicon-only approaches. In this presentation, we journey through some recent results in this field, uncovering both its inherent advantages and the challenges it presents. From the interplay of light and matter on the nanoscale to the practical applications in sensing, communication, and computation, we delve deep into the potential and flaws that nonlinear integrated photonics bring in.