

## Self-coherent robust spectrally efficient optical transmission systems (Technion)

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In the field of short-reach optical transmission links, there is a need for cost-effective and spectrally efficient links. Many options have been considered for this purpose. Using local oscillator lasers in the receiver provides the spectral efficiency but not the cost effectiveness. Self-coherent links, on the other hand, send the local oscillator optical signal remotely from the transmitter as a pilot, but the separation of the cross-talk requires investing resources which reduce spectral efficiency. Moreover, polarization multiplexing is hard to achieve with such scheme. The presented invention further augments the spectral efficiency of self-coherent heterodyne systems as well as the power efficiency, while being robust to impairments.

## **Contact for more information:**

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