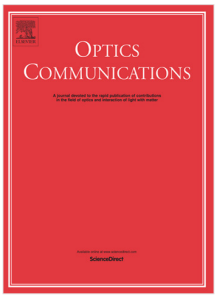
Accepted Manuscript



Nonlinearity mitigation with neural networks in vector mm-wave system

Li Tao, Liang Chen, Qifeng Liu

PII: S0030-4018(18)30715-6
DOI: https://doi.org/10.1016/j.optcom.2018.08.024
Reference: OPTICS 23381

To appear in: *Optics Communications*

Received date : 16 June 2018
Revised date : 7 August 2018
Accepted date : 9 August 2018

Please cite this article as: L. Tao, L. Chen, Q. Liu, Nonlinearity mitigation with neural networks in vector mm-wave system, *Optics Communications* (2018), https://doi.org/10.1016/j.optcom.2018.08.024

Highlight

1. Volterra based NLE, two-layer forward NN (FNN) and radial basis function NN (RNN) are investigated in vector mm-wave system.

2. FNN and RNN scheme with similar performance are feasible to compensate the nonlinearity.

3. Nerual network (NN) class schemes outperform the conventional nonlinear equalization using statistics algorithm.