

# Abstracts

## Gradient evaluation for neural-networks-based electromagnetic optimization procedures

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*G. Antonini and A. Orlandi. "Gradient evaluation for neural-networks-based electromagnetic optimization procedures." 2000 Transactions on Microwave Theory and Techniques 48.5 (May 2000 [T-MTT]): 874-876.*

This paper extends the use of a neural network (NN) approximating a function, to the evaluation of the gradient of the same function. This is done without any extra training of the network. The evaluation of the function's gradient is used in NN-based optimization procedures in order to speed up the convergence and to maintain the overall accuracy.

 [Return to main document.](#)