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Multidimensional Routing: a New Frontiere for Wireless Global Optimization

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Abstract— **In this paper we describe and compare many existing routing metrics, realized to improve the performance of wireless ad-hoc and mesh networks. Usually these metrics are defined by a linear combination of network parameters, coming from different ISO-OSI layers; but this way to proceed could not guarantee the best performances. So we propose a new approach, named multidimensional routing that defines a new metric, combining these parameters in a non-linear way.**

Keywords: cross-layer protocol, routing region, pah selection