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IMPROVED STRUCTURE IN PIECEWISE LINEAR HOMOTOPY ALGORITHMS FOR COMPUTING FIXED POINTS

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Abstract

We will consider new algorithms for computing fixed point or zeros of continuous function from $\mathbb{R}^n \to \mathbb{R}^n$ that are based on the trace of piecewise linear path in triangulation. We have try to investigate the possible saving that arise when these fixed algorithm with new computing zeros of function with special structure i.e. either f is piecewise linear in certain variable or as Jacobian with small bandwidth.

Key Words : Piecewise-linear Homotopy Algorithms, Fixed point, Special structure,

Separability.

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