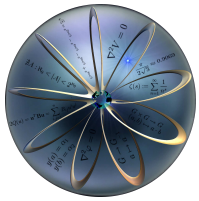

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simplicial approximation theorem

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Let $f : |K| \to |L|$ be continuous function, where $|K|$ and $|L|$ are polyhedra having triangulations K and L, respectively.

Then there is a barycentric subdivision $K^{(s)}$ of K and a continuous function $g : |K| \to |L|$ such that g is a simplicial map from $K^{(s)}$ to $|L|$ and g is homotopic to f.

The theorem is due to J.W. Alexander.

References

[1] J.W. Alexander , *Combinatorial analysis situs*, Trans. Amer. Math. Soc. **28**, 301-329, (1926)