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A semiflow induced by a length metric

For any compact length space (X, d) (Bing and Moise proved independently that any Peano continuum admits such a metric) we consider the semiflow in the hyperspace 2^X given by the map

 $F: 2^X \times R^+ \to 2^X$

with F(A, t) = C(A, t) the generalized closed ball in *X* about *A* of radius *t*.

Then we study some properties of this semiflow (and in particular its restriction to the subset of the hyperspace formed by all the closed balls centered at single points) for several classes of spaces: manifolds, graphs and finite polyhedra among them.

^{*}This is a joint work with Manuel Alonso Morón