

## Intrinsic shape of an attractor in arbitrary metric space

Nikita Shekutkovski

University of St. Cyril and Methodius, Faculty of Natural sciences  
and Mathematics, Skopje

nikita@pmf.ukim.mk

(joint work with Martin Shoptrajanov)

For the analysis of the long-term behaviour of a dynamical system. it is important to know how the attractor looks like. Since, attractors could have very complicated local structure, an appropriate tool is shape  $\equiv$  a homotopy theory adapted to this kind of spaces.

During the last decades the theorem bellow was proved with additional assumptions on the state space  $X$  and/or on the semiflow (semidynamical system)  $\Phi : X \times R^+ \rightarrow X$

In the talk will be given a short introduction to intrinsic shape of paracompacta and the theorem will be proved in the most general form i.e.

**THEOREM:** Suppose  $\Phi : X \times R^+ \rightarrow X$  be a semiflow defined on a metric space  $X$ . If  $M$  is a global attractor then the inclusion  $M \rightarrow X$  induces a shape equivalence