

# Todorčević' trichotomy and a hierarchy in the class of tame dynamical systems

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I will briefly review the newly developed theory of tame dynamical systems and then show how Todorčević' trichotomy in the class of separable Rosenthal compacta is reflected as a hierarchy in the class of tame dynamical systems  $(X, T)$  according to the topological properties of their enveloping semigroups  $E(X)$ . More precisely, I will define the classes

$$\text{Tame}_2 \subset \text{Tame}_1 \subset \text{Tame},$$

where  $\text{Tame}_1$  is the proper subclass of tame systems with first countable  $E(X)$ , and  $\text{Tame}_2$  is its proper subclass consisting of systems with hereditarily separable  $E(X)$ . Some general properties of these classes will be discussed and I will exhibit some examples to illustrate these properties. This is a joint work with Michael Megrelishvili.