

Ślawomir Nowak, *University of Warsaw, Poland*

## **Stable shape theories: applications and open problems**

The stable shape category  $\text{ShStab}$  of compact spaces is related to stable homotopy as the ordinary shape category  $\text{Sh}$  is to homotopy. The purpose of the talk is to present properties of  $\text{ShStab}$ . The special emphasis is put on interactions of stable shape with other areas of topology. This approach motives us to introduce new shape or stable shape invariants and modify the construction of  $\text{ShStab}$ .

In particular the infinite dimensional stable shape categories of compact spaces are defined. In certain sense they are complementary to  $n$ -shape category of compact spaces (finite dimensional shape category). The objects of infinite dimensional shape category are isomorphic iff their function spectra have the same  $n$ -type.

We formulate open problems which concern relationships between shape or stable shape theory and topology or homotopy theory.