

Multi-valued reasoning, from model theory to topological dynamics

Itai Ben Yaacov

Lyon 1

`begnac@math.univ-lyon1.fr`

Topometric spaces are spaces equipped with two kinds of structure : a topological structure and a metric structure, refining the former. While examples of such spaces are abundant in many areas of mathematics (e.g., the unitary group of a Banach space, equipped with the operator topology and norm distance), it was their role in metric model theory that led to a systematic study thereof, and to the recognition of their potential applications in other areas, such as topological dynamics and the study of Polish groups. I shall present several such results.