Products of γ-sets.

Magdalena Włudecka

Let X be a subset of the real line and $\mathrm{C}(X)$ be a space of real-valued functions on X with pointwise convergence topology. The space $\mathrm{C}(X)$ is first-countable if and only if the space X is countable. We consider a connection between the Fréchet-Urysohn property (which is a generalization of first-countability) of the space $\mathrm{C}(X)$ and the properties of the space X. To this end, we define γ-sets. Based on Boaz Tsaban's results, we show that uncountable subsets of the real line with some combinatorial structure, are γ-sets. We also consider the products of γ-sets. This is a joint work with Piotr Szewczak.