Continuous operators from spaces of Lipschitz functions

Damian Sobota

Kurt Gödel Research Center, Department of Mathematics, Vienna University

For a metric space M by $\operatorname{Lip}_0(M)$ we denote the Banach space of Lipschitz real-valued functions on M vanishing at a fixed point 0, endowed with the Lipschitz constant norm. During my talk we will discuss the existence of continuous linear surjections between spaces of the form $\operatorname{Lip}_0(M)$ and $(\operatorname{Lip}_0(N), \tau)$, where τ denotes the weak topology or the pointwise topology of $\operatorname{Lip}_0(N)$. We will also be interested in the question when a given space $\operatorname{Lip}_0(M)$ admits bounded linear operators onto the classical Banach spaces c_0 and ℓ_1 , and compare the situation to the case of the Banach spaces C(K)of continuous real-valued functions on compact spaces K.

(Joint work with C. Bargetz and J. Kakol.)