ARE EBERLEIN-GROTHENDIECK SCATTERED SPACES σ-DISCRETE?

ANTONIO AVILÉS AND DAVID GUERRERO SÁNCHEZ

Abstract

A space X is Eberlein-Grothendieck if $X \subset C_p(K)$ for some compact space K. In this paper we address the problem of whether such a space X is σ-discrete whenever it is scattered. We show that if $w(K) \leq \omega_1$ then X is σ-dicrete whenever X has height ω_1 and it is locally compact or locally countable. It is also proved that every Lindelöf Čech-complete scattered space is σ-compact.