

Ryszard Grzaślewicz

On positive operator-valued continuous maps

Comment.Math.Univ.Carolinae 37,3 (1996) 499-505.

Abstract: In the paper the geometric properties of the positive cone and positive part of the unit ball of the space of operator-valued continuous space are discussed.

In particular we show that

$ext-rayC_+(K, \mathcal{L}(H)) = \{\mathbb{R}_+ \mathbf{1}_{\{k_0\}} \mathbf{x} \otimes \mathbf{x} : \mathbf{x} \in \mathbf{S}(H), k_0 \text{ is an isolated point of } K\}$
 $\mathfrak{B}R_{\mathcal{L}} ext \mathbf{B}_+(C(K, \mathcal{L}(H))) = s-ext \mathbf{B}_+(C(K, \mathcal{L}(H)))$ $\mathfrak{B}R_{\mathcal{L}} = \{f \in C(K, \mathcal{L}(H)) : f(K) \subset ext \mathbf{B}_+(\mathcal{L}(H))\}$.

Moreover we describe exposed, strongly exposed and denting points.

Keywords: exposed point, denting point, Hilbert space, positive operator $\mathfrak{B}R_{\mathcal{L}}$

AMS Subject Classification: Primary 47D20; Secondary 46B20