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Noncommutative Valdivia compacta

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Abstract: We prove some generalizations of results concerning Valdivia compact spaces (equivalently spaces with a commutative retractional skeleton) to the spaces with a retractional skeleton (not necessarily commutative). Namely, we show that the dual unit ball of a Banach space is Corson provided the dual unit ball of every equivalent norm has a retractional skeleton. Another result to be mentioned is the following. Having a compact space K, we show that K is Corson if and only if every continuous image of K has a retractional skeleton. We also present some open problems in this area.

Keywords: retractional skeleton; projectional skeleton; Valdivia compacta; Plichko spaces AMS Subject Classification: 46B26, 54D30

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