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New concept of the ABB theorem. (Nouvelle approche du théorème de ABB.) (French)

[Zbl 1167.49020](#)

C. R., Math., Acad. Sci. Paris 347, No. 15-16, 853-856 (2009).

Summary: This note presents a density result of the Arrow-Barankin-Blackwell (ABB) theorem type for a strong topology of a Banach space equipped with the preorder associated to a convex well-based cone. The hypothesis of compactness is relaxed. Here the technique used is based on properties of the Bishop-Phelps cone, and does not require any property of the Hening dilating cone.

MSC:

[49J99](#) Existence theories in calculus of variations and optimal control

[46N10](#) Applications of functional analysis in optimization, convex analysis, mathematical programming, economics

[90C48](#) Programming in abstract spaces

Keywords:

[convexity](#); [ABB theorem](#); [Bishop-Phelps cone](#)

Full Text: [DOI](#)

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