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Bogmér, A.; Joó, I.; Stachó, L.L.
Remarks on superlinear operators. (English)
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The concept of superlinear operators is considered in the setting of vector lattices. A map T from E to F, where E and F are vector lattices, is defined to be superlinear if for each x in E there is a linear operator L_x so that $L_x x = Tx$ and $|L_x| \leq |T|$. If L_x can always be chosen as a positive linear map, then T is said to be positive superlinear. Among the results presented, it is shwon that if E and F are topological vector lattices with the dual of F having an appropriate separation property, then each continuous positive superlinear map T is linear. Such is the case if F is the Banach lattice of all continuous functions on a compact space. An example of a continuous positive superlinear map which is not linear is provided.

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