

# LOWER LIMITS OF TYPE (D) MONOTONE OPERATORS IN GENERAL BANACH SPACES

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ABSTRACT. We give, for general Banach spaces, a characterization of the sequential lower limit of maximal monotone operators of type (D) and prove its representability. As a consequence, using a recent extension of the Moreau-Yosida regularization for type (D) operators, we extend to general Banach spaces the definitions of the variational sum of monotone operators and the variational composition of monotone operators with continuous linear mappings, and we prove that both operators are representable.

## REFERENCES

- [1] O. Bueno, Y. García and M. Marques Alves Lower limits of type (D) monotone operators in general Banach spaces. *J. Convex Anal.* 23, no. 2, 333–345, 2016.

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