

# From monotonicity to premonotonicity

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## Abstract

Here, we consider any operator  $T$  as a subset in  $\mathbb{R}^n \times \mathbb{R}^n$ , where  $T(x) = \{u \in \mathbb{R}^n : (x, u) \in T\}$ , because associated to  $T$  there exists a function  $\sigma_T : \mathbb{R}^n \rightarrow [0, +\infty]$ . When  $\sigma_T$  is a null function, we recuperate the notion of monotonicity and when  $\sigma_T$  is finite (i.e.  $\sigma_T(x) < +\infty \forall x \in \mathbb{R}^n$ ), we recuperate the premonotonicity. The questions is, What are the properties shared by both operators?. We give some answers to that question.

## References

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