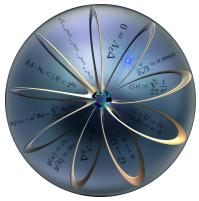

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coercive function

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Definition 1 (coercive function)**.** *Let X and Y be topological spaces. A function $f\colon X \to Y$ is said to be* coercive *if for every compact set $J \subset Y$ there exists a compact set $K \subset X$ such that*

$$F(X \setminus K) \subset Y \setminus J.$$

The general definition given above has a clear sense when specialized to the Euclidean spaces, as shown in the following result.

Proposition 1 (coercive functions on $\mathbb{R}^n$)**.** *A function $f\colon \mathbb{R}^n \to \mathbb{R}^m$ is coercive if and only if*

$$\lim_{|x|\to+\infty} |f(x)| = +\infty.$$